


STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT <input checked="" type="checkbox"/>							
<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER HORSE BENCH FED 4-20D-12-17							
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT WILDCAT							
4. TYPE OF WELL Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME							
6. NAME OF OPERATOR BILL BARRETT CORP						7. OPERATOR PHONE 303 312-8164							
8. ADDRESS OF OPERATOR 1099 18th Street Ste 2300, Denver, CO, 80202						9. OPERATOR E-MAIL BHilgers@billbarrettcorp.com							
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) utu65783			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>							
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')							
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')							
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>							
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE		MERIDIAN	
LOCATION AT SURFACE		347 FNL 550 FEL		NENE		19		12.0 S		17.0 E		S	
Top of Uppermost Producing Zone		668 FNL 691 FWL		NWNW		20		12.0 S		17.0 E		S	
At Total Depth		668 FNL 691 FWL		NWNW		20		12.0 S		17.0 E		S	
21. COUNTY CARBON			22. DISTANCE TO NEAREST LEASE LINE (Feet) 668			23. NUMBER OF ACRES IN DRILLING UNIT 40							
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 8838			26. PROPOSED DEPTH MD: 7816 TVD: 7570							
27. ELEVATION - GROUND LEVEL 6705			28. BOND NUMBER WYB000040			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE NINE MILE CANYON							
<b>Hole, Casing, and Cement Information</b>													
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement		Sacks	Yield	Weight		
Cond	24	14	0 - 40	65.0	Unknown	8.6	No Used		0	0.0	0.0		
Surf	12.25	9.625	0 - 1000	36.0	J-55 ST&C	8.6	Varocem		170	2.53	12.0		
							Halliburton Premium , Type Unknown		190	1.16	15.8		
Prod	8.75	4.5	0 - 7816	11.6	P-110 LT&C	9.5	Halliburton Light , Type Unknown		310	1.96	12.5		
							50/50 Poz		1300	1.45	13.4		
<b>ATTACHMENTS</b>													
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>													
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN							
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER							
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP							
NAME Brady Riley					TITLE Permit Analyst			PHONE 303 312-8115					
SIGNATURE					DATE 09/28/2012			EMAIL briley@billbarrettcorp.com					
API NUMBER ASSIGNED 43007503500000					APPROVAL  Permit Manager								

**DRILLING PROGRAM****BILL BARRETT CORPORATION****Horse Bench Federal 4-20D-12-17**

NENE, 347' FNL, 550' FEL, Sec. 19, T12S-R17E (surface hole)  
 NWNW, 668' FNL, 691' FWL, Sec. 20, T12S-R17E (bottom hole)  
 Carbon County, Utah

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**1 – 2. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals**

<b><u>Formation</u></b>	<b><u>Depth – MD</u></b>	<b><u>Depth – TVD</u></b>
Green River	Surface	Surface
Wasatch	3514'	3360'
North Horn	5536'	5290'
Dark Canyon	6966'	6720'
Price River	7316'	7,070'
TD	7816'	7570'

**PROSPECTIVE PAY:** \*Members of the Mesaverde formation and Wasatch formation (inclusive of the North Horn) are primary objectives for oil/gas. Any shallow water zones encountered will be adequately protected and reported. All potentially productive hydrocarbon zones will be cemented off.

**3. BOP and Pressure Containment Data**

<b><u>Depth Intervals</u></b>	<b><u>BOP Equipment</u></b>
0 – 1000'	No pressure control required
1000' – TD	11" 3000# Ram Type BOP 11" 3000# Annular BOP
- Drilling spool to accommodate choke and kill lines;	
- Ancillary equipment and choke manifold rated at 3,000#. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2;	
- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.	
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up to operate most efficiently in this manner.	

Bill Barrett Corporation  
 Drilling Program  
 Horse Bench Federal 4-20D-12-17  
 Carbon County, Utah

#### 4. Casing Program

<u>Hole Size</u>	<u>Setting Depth</u> <u>From</u> <u>To</u>		<u>Casing Size</u>	<u>Casing Weight</u>	<u>Casing Grade</u>	<u>Thread</u>	<u>Condition</u>
24"	Surface	40'	14"	65#			
12 1/4"	Surface	1000'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4" and 7 7/8"	Surface	TD'	4 1/2"	11.6#	I-100, N-80, P110	LT&C	New

Note: BBC will use one of the options of production casing size noted above. Casing grade for each option could be I-100, P-110 or I-80. In addition, the 7 7/8" hole size will begin at the point the bit is changed.

#### 5. Cementing Program

14" Conductor Casing	Grout cement
9 5/8" Surface Casing	<i>Lead</i> with approximately 170 sx Varicem cement + additives mixed at 12.0 ppg (yield = 2.53 ft <sup>3</sup> /sx).  <i>Tail</i> with approximately and 190 sx Halcem cement with additives mixed at 15.8 ppg (yield = 1.16 ft <sup>3</sup> /sx) circulated to surface with 100% excess.
4 1/2" Production Casing	<i>Lead</i> with approximately 310 sx of Halliburton Light Premium cement with additives mixed at 12.5 ppg (yield = 1.96 ft <sup>3</sup> /sx).  <i>Tail</i> with approximately 1300 sx of 50/50 Poz cement + additives mixed at 13.4 ppg (yield = 1.45 ft <sup>3</sup> /sk), circulated to ~800' with 15% excess.

Note: Actual volumes to be calculated from caliper log.

#### 6. Mud Program

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u> <u>(API filtrate)</u>	<u>Remarks</u>
0 – 40'	8.3 – 8.6	27 – 40	--	Native Spud Mud
40' – 1000'	8.3 – 8.6	27 – 40	15 cc or less	Native/Gel/Lime
1000' – TD	8.6 – 9.5	38 – 46	15 cc or less	LSND/DAP

Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.

#### 7. Testing, Logging and Core Programs

Cores	None anticipated;
Testing	None anticipated;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	Run every 1000' and on trips, slope only;
Logging	DIL-GR-SP, FDC-CNL-GR-CAL-Pe-Microlog, Sonic-GR, all TD to surface.

Bill Barrett Corporation  
Drilling Program  
Horse Bench Federal 4-20D-12-17  
Carbon County, Utah

**8. Anticipated Abnormal Pressures or Temperatures**

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3861 psi\* and maximum anticipated surface pressure equals approximately 2141 psi\*\* (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

\*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

\*\*Maximum surface pressure = A – (0.22 x TD)

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**9. Auxiliary Equipment**

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use
- d) Mud monitoring will be visually observed

**10. Drilling Schedule**

Location Construction: 1/1/2013  
Spud: 1/1/2013  
Duration: 10 days drilling time  
15 days completion time

**Other -Onshore Variances Requested**

Use of EFM and Flow Conditioner (Onshore Order No. 5)

Use of an electronic flow meter (EFM) for gas measurement purposes is requested with this application.

Use of a flow conditioner is also being requested (versus straightening vanes). Flow conditioners have been proven to be as or more effective than straightening vanes in conditioning gas for measurement. In addition to their superior conditioning properties, they take up less space (shorter meter runs/smaller footprint), and are less prone to corrosion and dislodging (greater reliability). In the past BBC has experienced straightening vanes becoming dislodged in normal service and compromising their conditioning effectiveness.

Make/Model: CPA 50E

Dimensions: 2" or 3" Flanged conditioners - 16" minimum up to 3 1/2' long x 2" (ID 2.067) OR 24" minimum up to 3 1/2' long x 3" (ID 3.068)

Air Drilling (Onshore Order No. 2)

Air drilling operations will be conducted with the purpose of drilling and setting surface casing with a truck mounted air rig, for all Federal wells located at this pad. Surface casing is approximately 1000'. Bill Barrett Corporation will comply with the following surface air drilling operation requirements:

1. Properly lubricated and maintained diverter system in place of a rotating head. The diverter system forces air and cutting returns to the cuttings pit and is used solely to drill the surface hole. In addition, BBC will use a properly lubricated and maintained rotating head in compliance with OOG No. 2.
2. The Blooie line will discharge at least 100 feet from the wellbore and will be securely anchored.
3. An automatic igniter or continuous pilot light will be installed at the end of the blooie line.
4. Compressors that supply energy to drill the air filled surface hole will be located 100' away from the wellbore and on the opposite side of the blooie line. The compressors will be equipped with 1) emergency kill switch, 2) pressure relief valves 3) spark arresters on the motors.

## **PRESSURE CONTROL EQUIPMENT – Schematic Attached**

**A. Type:** Eleven (11) Inch Double Gate Hydraulic BOP with Eleven (11) Inch Annular Preventer. The blow out preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
4. 3-inch diameter choke line.
5. Two (2) choke line valves (3-inch minimum).
6. Kill line (2-inch minimum).
7. Two (2) chokes.
8. Two (2) kill line valves, one of which shall be a check valve (2-inch minimum).
9. Upper kelly cock valve with handles available.
10. Safety valve(s) & subs to fit all drill string connections in use.
11. Pressure gauge on choke manifold.
12. Fill-up line above the uppermost preventer.

**B. Pressure Rating:** 3,000 psi

**C. Testing Procedure:**

### *Annular Preventer*

At a minimum, the Annular Preventer will be pressure tested to 50% of the rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition, the Annular Preventer will be functionally operated at least weekly.

### *Blow-Out Preventer*

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be

maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

#### **D. Choke Manifold Equipment:**

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

#### **E. Accumulator:**

The accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir will be maintained at the manufacturer's recommendations.

The BOP system will have two (2) independent power sources to close the preventers. Nitrogen bottles (3 minimum) will be one (1) of these independent power sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in the *Onshore Oil & Gas Order Number 2*.

A manual locking device (i.e. hand wheels) or automatic locking device will be installed on all systems of 2M or greater. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls for all 3M or greater systems will be capable of closing all preventers. Remote controls for 5M or greater systems will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

**F. Miscellaneous Information:**

The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2*. The choke manifold will be located outside the rig sub-structure. The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold, extending 125 feet (minimum) from the center of the drill hole to a separate flare pit.





# Bill Barrett Corporation

## NINE MILE CEMENT VOLUMES

**Well Name:** HORSE BENCH FEDERAL 4-20D-12-17

### Surface Hole Data:

Total Depth:	1,000'
Top of Cement:	0'
OD of Hole:	12.250"
OD of Casing:	9.625"

### Calculated Data:

Lead Volume:	203.6	ft <sup>3</sup>
Lead Fill:	650'	
Tail Volume:	109.6	ft <sup>3</sup>
Tail Fill:	350'	

### Cement Data:

Lead Yield:	2.53	ft <sup>3</sup> /sk
Tail Yield:	1.16	ft <sup>3</sup> /sk
% Excess:	100%	

### Calculated # of Sacks:

# SK's Lead:	170
# SK's Tail:	190

### Production Hole Data:

Total Depth:	7,816'
Top of Cement:	800'
OD of Hole:	8.750"
OD of Casing:	4.500"

### Calculated Data:

Lead Volume:	522.1	ft <sup>3</sup>
Lead Fill:	1,700'	
Tail Volume:	1632.7	ft <sup>3</sup>
Tail Fill:	5,316'	

### Cement Data:

Lead Yield:	1.96	ft <sup>3</sup> /sk
Tail Yield:	1.45	ft <sup>3</sup> /sk
% Excess:	15%	

### Calculated # of Sacks:

# SK's Lead:	310
# SK's Tail:	1300

## HORSE BENCH FEDERAL 4-20D-12-17 Proposed Cementing Program

<u>Job Recommendation</u>	<u>Surface Casing</u>		
<b>Lead Cement - (650' - 0')</b>			
Varicem <sup>TM</sup> Cement	Fluid Weight:	12	lbm/gal
0.25 lbm/sk Poly-E-Flake	Slurry Yield:	2.53	ft <sup>3</sup> /sk
	Total Mixing Fluid:	14.82	Gal/sk
	Top of Fluid:	0'	
	Calculated Fill:	650'	
	Volume:	36.25	bbl
	<b>Proposed Sacks:</b>	<b>170</b>	<b>sks</b>
<b>Tail Cement - (1000' - 650')</b>			
Halcem <sup>TM</sup> System	Fluid Weight:	15.8	lbm/gal
2.0% Calcium Chloride	Slurry Yield:	1.16	ft <sup>3</sup> /sk
	Total Mixing Fluid:	4.98	Gal/sk
	Top of Fluid:	650'	
	Calculated Fill:	350'	
	Volume:	19.52	bbl
	<b>Proposed Sacks:</b>	<b>190</b>	<b>sks</b>

<u>Job Recommendation</u>	<u>Production Casing</u>		
<b>Lead Cement - (800' - 2500')</b>			
Halliburton Light Premium	Fluid Weight:	12.5	lbm/gal
0.3% Versaset	Slurry Yield:	1.96	ft <sup>3</sup> /sk
0.3% Super CBL	Total Mixing Fluid:	10.48	Gal/sk
0.125 lbm/sk Poly-E-Flake	Top of Fluid:	800'	
0.25% Fe-2	Calculated Fill:	1,700'	
0.2% Econolite	Volume:	92.99	bbl
	<b>Proposed Sacks:</b>	<b>310</b>	<b>sks</b>
<b>Tail Cement - (2500' - 7816')</b>			
50/50 Poz Premium	Fluid Weight:	13.4	lbm/gal
3.0 % KCL	Slurry Yield:	1.45	ft <sup>3</sup> /sk
0.75% Halad®-322	Total Mixing Fluid:	6.82	Gal/sk
0.2% FWCA	Top of Fluid:	2,500'	
0.3% Super CBL	Calculated Fill:	5,316'	
0.125 lbm/sk Poly-E-Flake	Volume:	290.78	bbl
1.0 lbm/sk Granulite TR 1/4	<b>Proposed Sacks:</b>	<b>1300</b>	<b>sks</b>

**T12S, R17E, S.L.B.&M.****BILL BARRETT CORPORATION**

S89°58'25"W - 5152.00' (Meas.)

1909 Brass Cap,  
1.4' High, Pile  
of StonesN89°57'48"W  
2642.81' (Meas.)1909 Brass Cap,  
1.0' High, Pile  
of Stones

**HORSE BENCH FEDERAL  
#4-20D-12-17**  
Elev. Ungraded Ground = 6705'

N 1/4 Cor. Sec. 20  
1909 Brass Cap,  
2.3' High, Pile  
of StonesTarget  
Bottom  
Hole

Well location, HORSE BENCH FEDERAL  
#4-20D-12-17, located as shown in  
the NE 1/4 NE 1/4 of Section 19, T12S,  
R17E, S.L.B.&M., Carbon County, Utah.

**BASIS OF ELEVATION**

COTTON TRIANGULATION STATION LOCATED IN THE  
NW 1/4 OF SECTION 31, T12S, R16E, S.L.B.&M.  
TAKEN FROM THE TWIN HOLLOW QUADRANGLE,  
UTAH, CARBON COUNTY, 7.5 MINUTE SERIES  
(TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED  
STATES DEPARTMENT OF THE INTERIOR,  
GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED  
AS BEING 7386 FEET.

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S75°31'40"E	1281.58'

19

1909 Brass Cap,  
Boulder

20

DISTANCE TABLE			
FROM	TO	BEARING	DISTANCE
#4-20D-12-17	GULLICKSON FED #1	S40°53'12"E	3656.14'

Brass Cap,  
1.4' High

N89°54'W - 5144.70' (G.L.O.)

S89°57'W  
5290.56' (G.L.O.)R R  
16 17  
E E**BASIS OF BEARINGS**

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

**LEGEND:**

└─ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 39°45'52.89" (39.764692)	LATITUDE = 39°45'56.07" (39.765575)
LONGITUDE = 110°02'34.14" (110.042817)	LONGITUDE = 110°02'50.02" (110.047228)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 39°45'53.02" (39.764727)	LATITUDE = 39°45'56.20" (39.765611)
LONGITUDE = 110°02'31.60" (110.042112)	LONGITUDE = 110°02'47.48" (110.046522)
STATE PLANE NAD 27 N: 524690.36 E: 2409796.10	STATE PLANE NAD 27 N: 524991.90 E: 2408551.34

SCALE 1" = 1000'	DATE SURVEYED: 09-11-12	DATE DRAWN: 09-18-12
PARTY B.H. R.H. C.C.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE BILL BARRETT CORPORATION	



SCALE

**CERTIFICATE**

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

REVISED: 09-24-12

**UINTAH ENGINEERING & LAND SURVEYING****85 SOUTH 200 EAST - VERNAL, UTAH 84078****(435) 789-1017****RECEIVED: September 28, 2012**

# BILL BARRETT CORPORATION

*HORSE BENCH FEDERAL NE 19 PAD*

**HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17 FUTURE: #1-19D-12-17, #7-19D-12-17,  
#2-19D-12-17, #14-17D-12-17, #13-17D-12-17 & #15-18D-12-17**

**LOCATED IN CARBON COUNTY, UTAH**

**SECTION 19, T12S, R17E, S.L.B.&M.**



PHOTO: VIEW OF LOCATION STAKES

CAMERA ANGLE: NORTHEASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHEASTERLY



- Since 1964 -

**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

**LOCATION PHOTOS**

**09 19 12**  
MONTH DAY YEAR

**PHOTO**

TAKEN BY: B.H.

DRAWN BY: C.I.

REVISED: 09-24-12

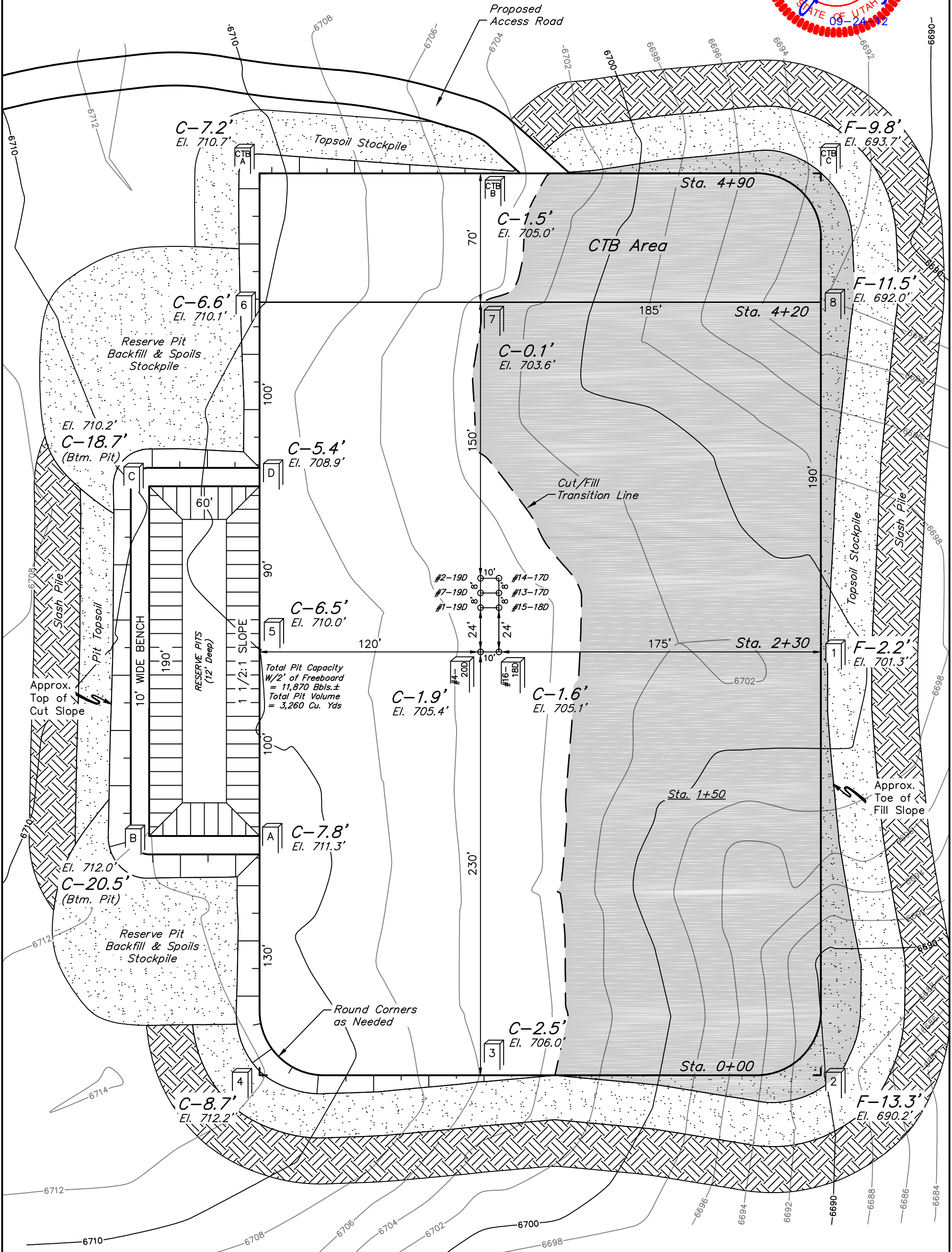
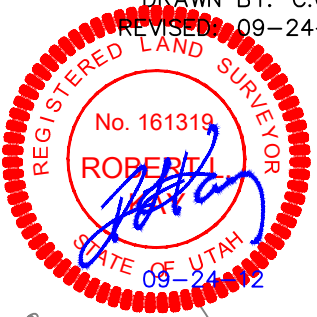


BILL BARRETT CORPORATION  
LOCATION LAYOUT FOR

HORSE BENCH FEDERAL NE 19 PAD  
HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17  
FUTURE: #1-19D-12-17, #7-19D-12-17, #2-19D-12-17,  
#14-17D-12-17, #13-17D-12-17 & #15-18D-12-17  
SECTION 19, T12S, R17E, S.L.B.&M.  
NE 1/4 NE 1/4

FIGURE #1

SCALE: 1" = 50'  
DATE: 09-18-12  
DRAWN BY: C.C.  
REVISED: 09-24-12



RECEIVED: September 28, 2012

BILL BARRETT CORPORATION

TYPICAL CROSS SECTIONS FOR

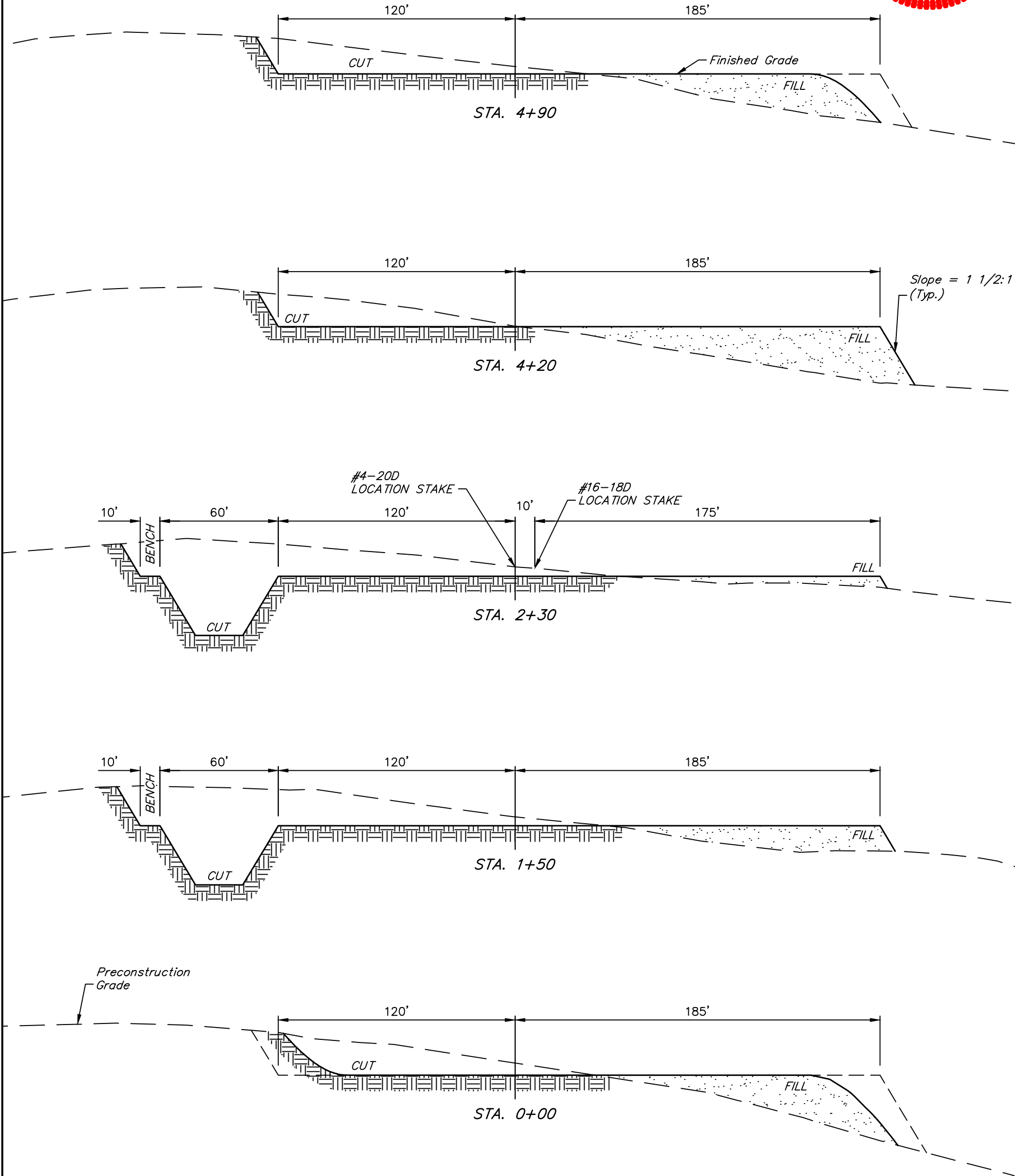
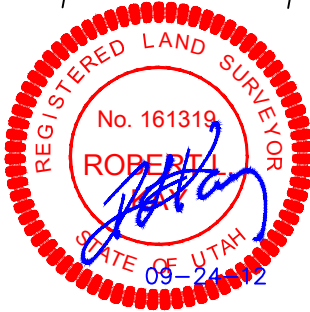
HORSE BENCH FEDERAL NE 19 PAD

HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17  
FUTURE: #1-19D-12-17, #7-19D-12-17, #2-19D-12-17,  
#14-17D-12-17, #13-17D-12-17 & #15-18D-12-17  
SECTION 19, T12S, R17E, S.L.B.&M.  
NE 1/4 NE 1/4

FIGURE #2

1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 09-18-12  
DRAWN BY: C.C.  
REVISED: 09-24-12



NOTE:  
Topsoil should not be  
Stripped Below Finished  
Grade on Substructure Area.

\* NOTE:  
FILL QUANTITY INCLUDES  
5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping = 3,340 Cu. Yds.  
Remaining Location = 16,090 Cu. Yds.  
TOTAL CUT = 19,430 CU.YDS.  
FILL = 14,460 CU.YDS.

EXCESS MATERIAL = 4,970 Cu. Yds.  
Topsoil & Pit Backfill = 4,970 Cu. Yds.  
(1/2 Pit Vol.)  
EXCESS UNBALANCE = 0 Cu. Yds.  
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017





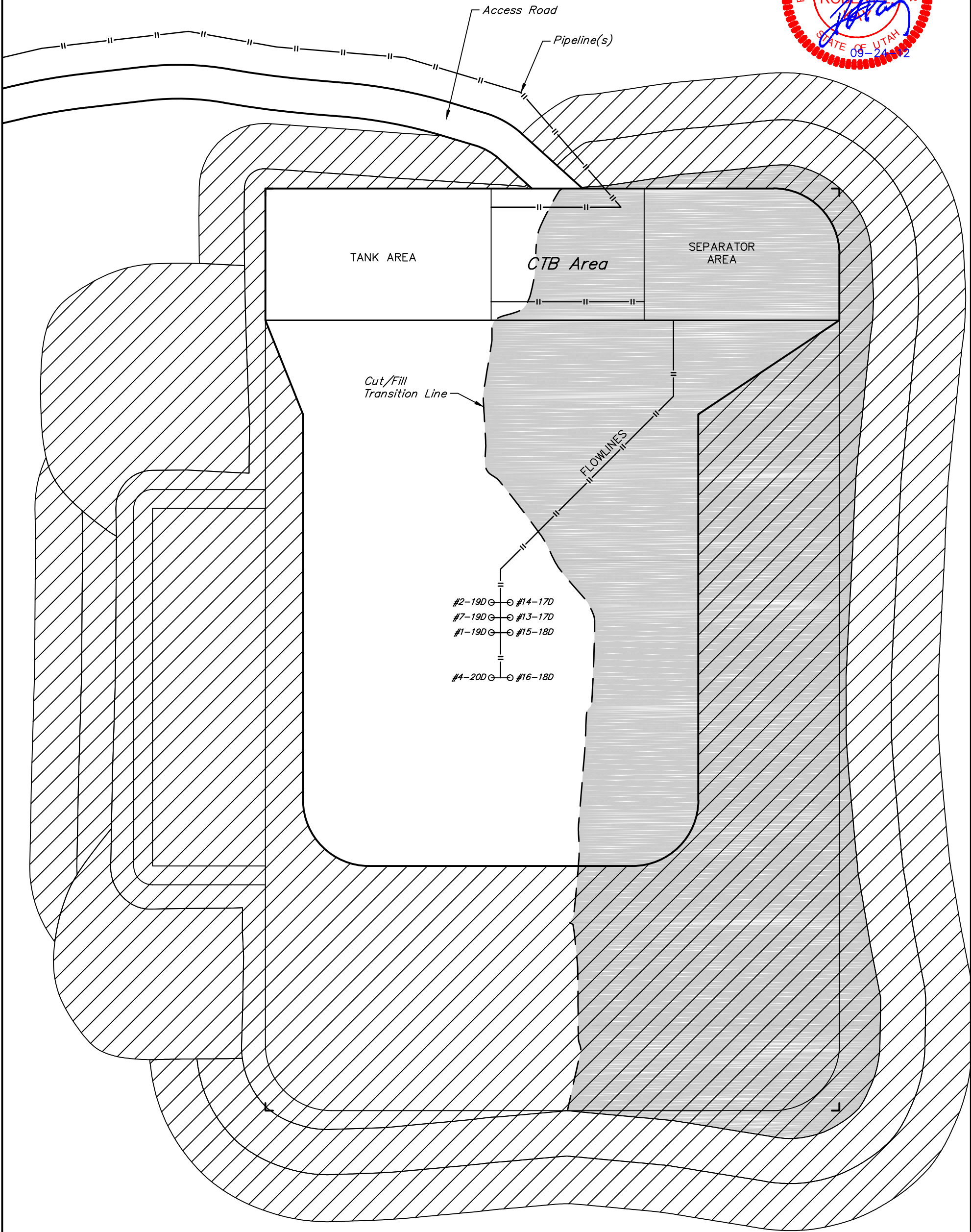
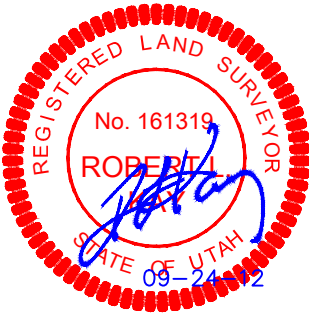
**BILL BARRETT CORPORATION**  
INTERIM RECLAMATION FOR

*HORSE BENCH FEDERAL NE 19 PAD*

HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17  
FUTURE: #1-19D-12-17, #7-19D-12-17, #2-19D-12-17,  
#14-17D-12-17, #13-17D-12-17 & #15-18D-12-17  
SECTION 19, T12S, R17E, S.L.B.&M.  
NE 1/4 NE 1/4

**FIGURE #4**

SCALE: 1" = 50'  
DATE: 09-18-12  
DRAWN BY: C.C.  
REVISED: 09-24-12



RECLAIMED AREA

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

RECEIVED: September 28, 2012



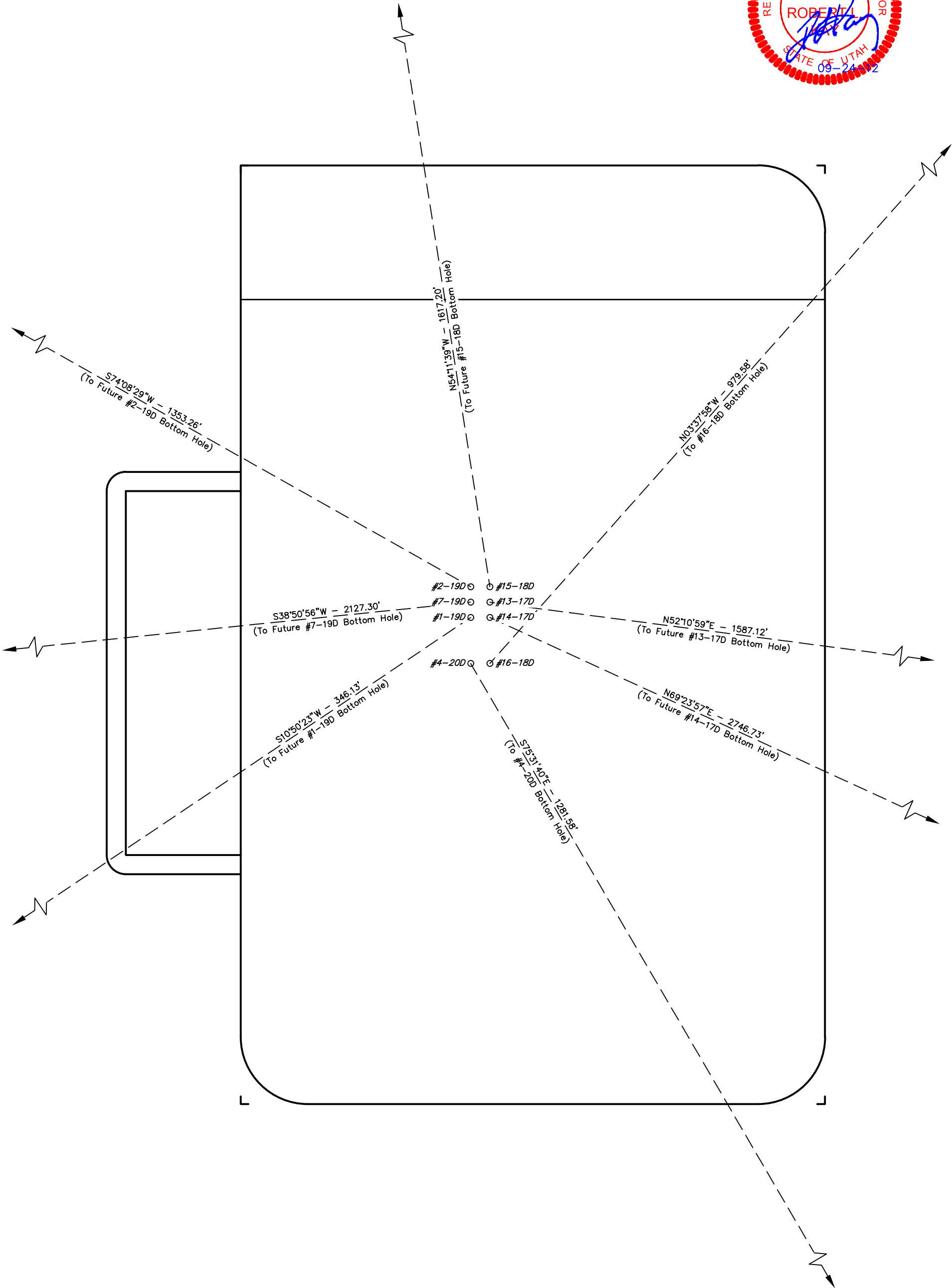
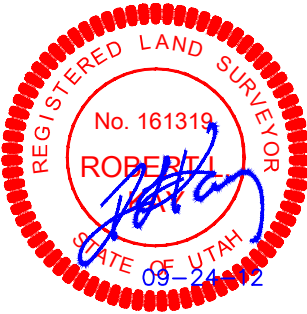
BILL BARRETT CORPORATION  
INTERFERENCE DIAGRAM FOR

HORSE BENCH FEDERAL NE 19 PAD

HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17  
FUTURE: #1-19D-12-17, #7-19D-12-17, #2-19D-12-17,  
#14-17D-12-17, #13-17D-12-17 & #15-18D-12-17  
SECTION 19, T12S, R17E, S.L.B.&M.  
NE 1/4 NE 1/4

FIGURE #5

SCALE: 1" = 50'  
DATE: 09-18-12  
DRAWN BY: C.C.  
REVISED: 09-24-12

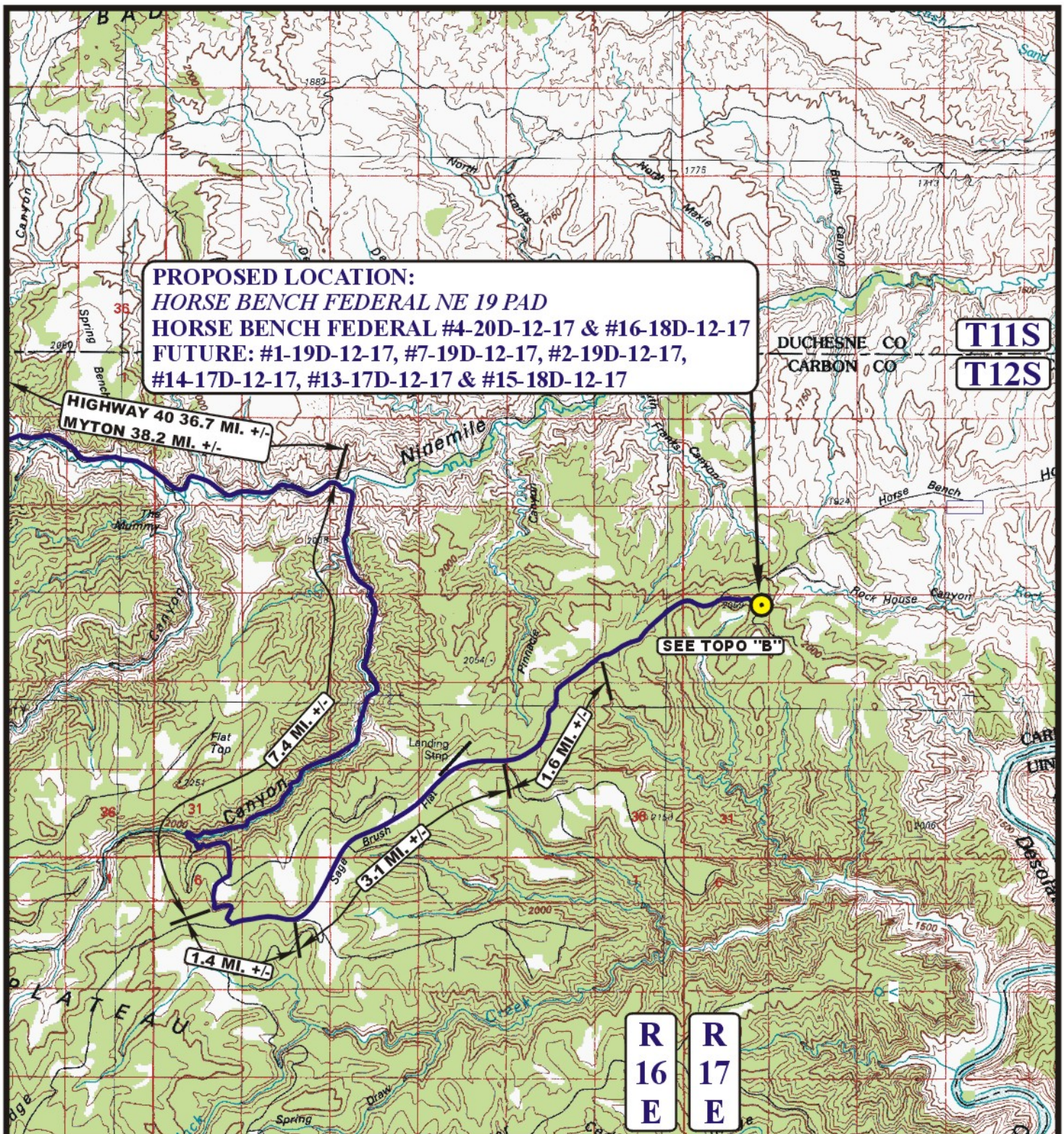


**BILL BARRETT CORPORATION**  
***HORSE BENCH FEDERAL NE 19 PAD***  
**HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17**  
**FUTURE: #1-19D-12-17, #7-19D-12-17, #2-19D-12-17,**  
**#14-17D-12-17, #13-17D-12-17 & #15-18D-12-17**  
**SECTION 19, T12S, R17E, S.L.B.&M.**

PROCEED IN A SOUTHWESTERLY DIRECTION FROM MYTON, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.5 MILES TO THE JUNCTION OF THIS ROAD AND NINE MILE CANYON ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 33.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 6.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; PROCEED IN AN EASTERLY, THEN SOUTHERLY, THEN SOUTHWESTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 7.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 1.6 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST; FOLLOW ROAD FLAGS IN A NORTHEASTERLY, THEN EASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 11,015' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM MYTON, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 53.8 MILES.



**LEGEND:**

**PROPOSED LOCATION**

**BILL BARRETT CORPORATION**

**HORSE BENCH FEDERAL NE 19 PAD**  
**HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17**  
**FUTURE: #1-19D-12-17, #7-19D-12-17,**  
**#2-19D-12-17, #14-17D-12-17, #13-17D-12-17 & #15-18D-12-17**  
**SECTION 19, T12S, R17E, S.L.B.&M.**  
**NE 1/4 NE 1/4**



**Uintah Engineering & Land Surveying**  
**85 South 200 East Vernal, Utah 84078**  
**(435) 789-1017 \* FAX (435) 789-1813**



**ACCESS ROAD**  
**M A P**

**09** **19** **12**  
**MONTH** **DAY** **YEAR**

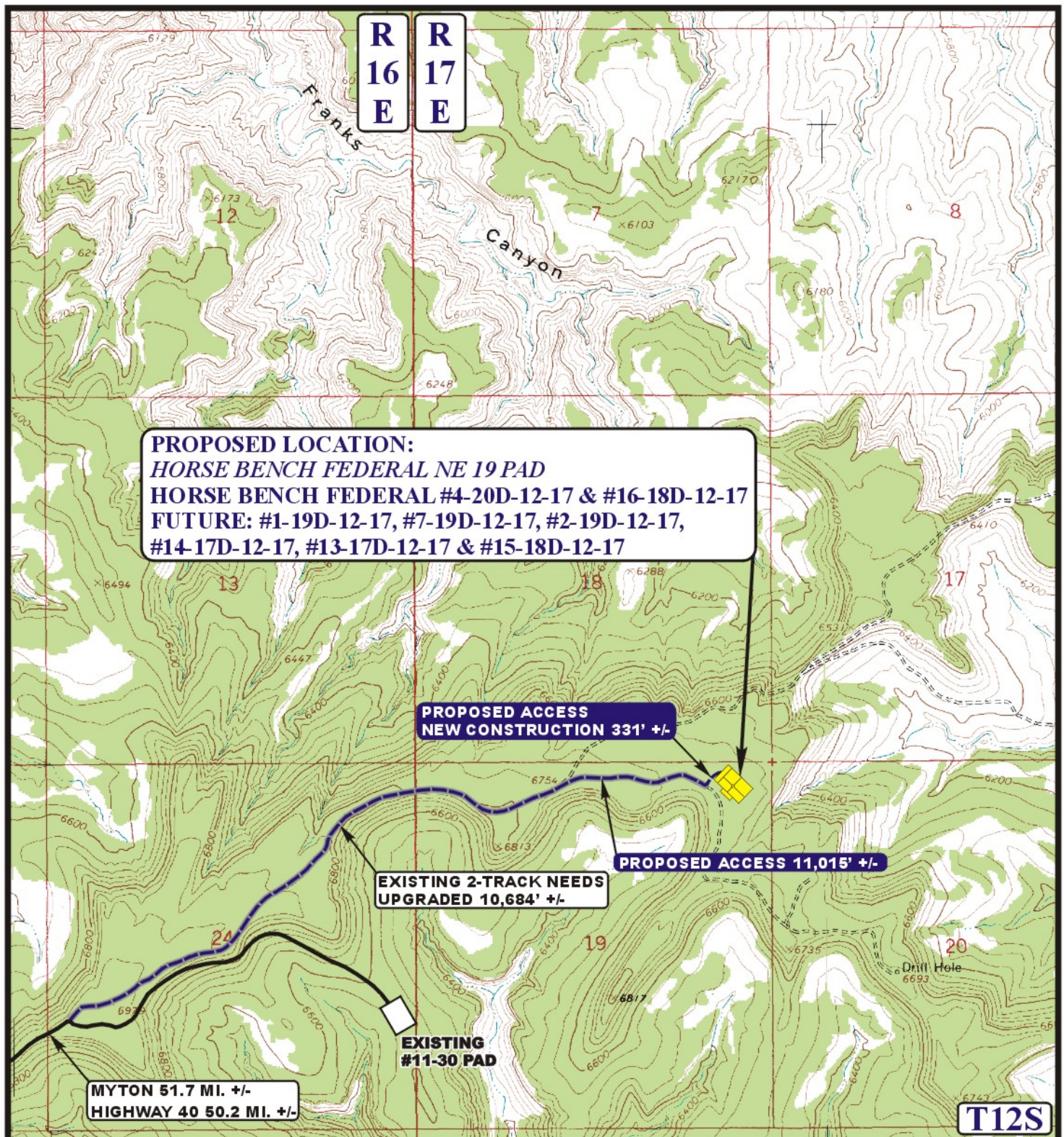
SCALE: 1:100,000

DRAWN BY: C.I.

REVISED: 09-24-12





**LEGEND:**

	EXISTING ROAD
	PROPOSED ACCESS ROAD
	EXISTING 2-TRACK NEEDS UPGRADED

**BILL BARRETT CORPORATION**

**HORSE BENCH FEDERAL NE 19 PAD**  
**HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17**  
**FUTURE: #1-19D-12-17, #7-19D-12-17,**  
**#2-19D-12-17, #14-17D-12-17, #13-17D-12-17 & #15-18D-12-17**  
**SECTION 19, T12S, R17E, S.L.B.&M.**  
**NE 1/4 NE 1/4**



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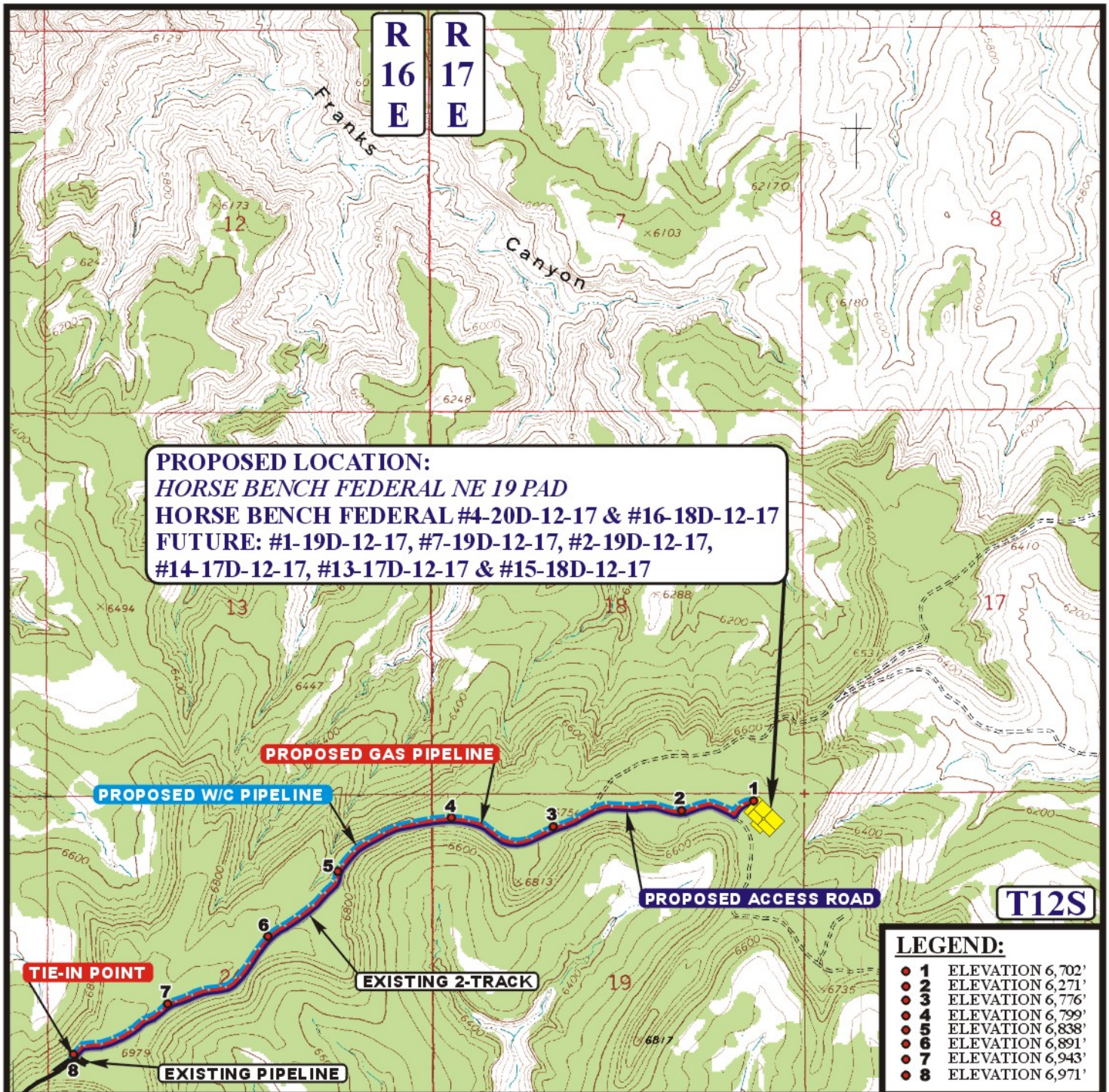
**ACCESS ROAD**  
**M A P**

**09 19 12**  
**MONTH DAY YEAR**

**SCALE: 1" = 2000'** **DRAWN BY: C.I.** **REVISED: 09-24-12**

**B**  
**TOPO**





**APPROXIMATE TOTAL W/C PIPELINE DISTANCE = 11,039' +/-**

**APPROXIMATE TOTAL GAS PIPELINE DISTANCE = 11,039' +/-**

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- - - PROPOSED GAS PIPELINE
- - - PROPOSED W/C PIPELINE
- EXISTING 2-TRACK

**BILL BARRETT CORPORATION**

**HORSE BENCH FEDERAL NE 19 PAD**  
**HORSE BENCH FEDERAL #4-20D-12-17 & #16-18D-12-17**  
**FUTURE: #1-19D-12-17, #7-19D-12-17,**  
**#2-19D-12-17, #14-17D-12-17, #13-17D-12-17 & #15-18D-12-17**  
**SECTION 19, T12S, R17E, S.L.B.&M.**  
**NE 1/4 NE 1/4**



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**TOPOGRAPHIC**  
**MAP**

**09 19 12**  
**MONTH DAY YEAR**

**SCALE: 1" = 2000'**

**DRAWN BY: C.I.**

**REVISED: 09-24-12**





# **BILL BARRETT CORP**

**CARBON COUNTY, UT (NAD 27)**

**Horse Bench NE 19 Pad**

**Horse Bench #4-20D-12-17**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**28 September, 2012**

## Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Horse Bench #4-20D-12-17
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 6725.0ft (Original Well Elev)
<b>Project:</b>	CARBON COUNTY, UT (NAD 27)	<b>MD Reference:</b>	KB @ 6725.0ft (Original Well Elev)
<b>Site:</b>	Horse Bench NE 19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Horse Bench #4-20D-12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	CARBON COUNTY, UT (NAD 27)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Ground Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Utah Central 4302		Using geodetic scale factor

Site		Horse Bench NE 19 Pad				
Site Position:		Northing:	524,992.00ft	Latitude:	39° 45' 56.200 N	
From:	Lat/Long	Easting:	2,408,551.30ft	Longitude:	110° 2' 47.479 W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.93 °

Well		Horse Bench #4-20D-12-17				
Well Position	+N/-S	0.0 ft	Northing:	524,991.99 ft	Latitude:	39° 45' 56.199 N
	+E/-W	0.0 ft	Easting:	2,408,551.30 ft	Longitude:	110° 2' 47.479 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,705.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/28/2012	11.10	65.54	51,982

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	104.56

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,923.8	28.86	104.56	2,843.5	-119.2	459.1	1.50	1.50	0.00	104.56	
3,612.3	28.86	104.56	3,446.5	-202.7	780.7	0.00	0.00	0.00	0.00	
5,536.1	0.00	0.00	5,290.0	-322.0	1,239.8	1.50	-1.50	0.00	180.00	
7,816.1	0.00	0.00	7,570.0	-322.0	1,239.8	0.00	0.00	0.00	0.00	#4-20D-12-17

**Bill Barrett Corp**

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Horse Bench #4-20D-12-17
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 6725.0ft (Original Well Elev)
<b>Project:</b>	CARBON COUNTY, UT (NAD 27)	<b>MD Reference:</b>	KB @ 6725.0ft (Original Well Elev)
<b>Site:</b>	Horse Bench NE 19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Horse Bench #4-20D-12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	1.50	104.56	1,100.0	-0.3	1.3	1.3	1.50	1.50	0.00
1,200.0	3.00	104.56	1,199.9	-1.3	5.1	5.2	1.50	1.50	0.00
1,300.0	4.50	104.56	1,299.7	-3.0	11.4	11.8	1.50	1.50	0.00
1,400.0	6.00	104.56	1,399.3	-5.3	20.3	20.9	1.50	1.50	0.00
1,500.0	7.50	104.56	1,498.6	-8.2	31.6	32.7	1.50	1.50	0.00
1,600.0	9.00	104.56	1,597.5	-11.8	45.5	47.0	1.50	1.50	0.00
1,700.0	10.50	104.56	1,696.1	-16.1	61.9	64.0	1.50	1.50	0.00
1,800.0	12.00	104.56	1,794.2	-21.0	80.8	83.5	1.50	1.50	0.00
1,900.0	13.50	104.56	1,891.7	-26.5	102.2	105.5	1.50	1.50	0.00
2,000.0	15.00	104.56	1,988.6	-32.7	126.0	130.2	1.50	1.50	0.00
2,100.0	16.50	104.56	2,084.9	-39.5	152.2	157.3	1.50	1.50	0.00
2,200.0	18.00	104.56	2,180.4	-47.0	180.9	186.9	1.50	1.50	0.00
2,300.0	19.50	104.56	2,275.0	-55.1	212.1	219.1	1.50	1.50	0.00
2,400.0	21.00	104.56	2,368.9	-63.8	245.6	253.7	1.50	1.50	0.00
2,500.0	22.50	104.56	2,461.7	-73.1	281.4	290.8	1.50	1.50	0.00
2,600.0	24.00	104.56	2,553.6	-83.0	319.6	330.2	1.50	1.50	0.00
2,700.0	25.50	104.56	2,644.4	-93.5	360.1	372.1	1.50	1.50	0.00
2,800.0	27.00	104.56	2,734.1	-104.6	403.0	416.3	1.50	1.50	0.00
2,900.0	28.50	104.56	2,822.6	-116.4	448.0	462.9	1.50	1.50	0.00
2,923.8	28.86	104.56	2,843.5	-119.2	459.1	474.3	1.50	1.50	0.00
3,000.0	28.86	104.56	2,910.2	-128.5	494.7	511.1	0.00	0.00	0.00
3,100.0	28.86	104.56	2,997.8	-140.6	541.4	559.3	0.00	0.00	0.00
3,200.0	28.86	104.56	3,085.4	-152.7	588.1	607.6	0.00	0.00	0.00
3,300.0	28.86	104.56	3,173.0	-164.9	634.8	655.9	0.00	0.00	0.00
3,400.0	28.86	104.56	3,260.6	-177.0	681.5	704.1	0.00	0.00	0.00
3,500.0	28.86	104.56	3,348.1	-189.1	728.2	752.4	0.00	0.00	0.00
3,513.5	28.86	104.56	3,360.0	-190.8	734.6	758.9	0.00	0.00	0.00
<b>Wasatch</b>									
3,600.0	28.86	104.56	3,435.7	-201.3	775.0	800.7	0.00	0.00	0.00
3,612.3	28.86	104.56	3,446.5	-202.7	780.7	806.6	0.00	0.00	0.00
3,700.0	27.54	104.56	3,523.8	-213.2	820.8	848.0	1.50	-1.50	0.00
3,800.0	26.04	104.56	3,613.0	-224.5	864.4	893.1	1.50	-1.50	0.00
3,900.0	24.54	104.56	3,703.5	-235.2	905.8	935.8	1.50	-1.50	0.00
4,000.0	23.04	104.56	3,795.0	-245.4	944.8	976.2	1.50	-1.50	0.00
4,100.0	21.54	104.56	3,887.5	-254.9	981.5	1,014.1	1.50	-1.50	0.00
4,200.0	20.04	104.56	3,981.0	-263.8	1,015.9	1,049.6	1.50	-1.50	0.00
4,300.0	18.54	104.56	4,075.4	-272.1	1,047.9	1,082.6	1.50	-1.50	0.00
4,400.0	17.04	104.56	4,170.6	-279.8	1,077.5	1,113.2	1.50	-1.50	0.00
4,500.0	15.54	104.56	4,266.5	-286.9	1,104.6	1,141.2	1.50	-1.50	0.00
4,600.0	14.04	104.56	4,363.2	-293.3	1,129.3	1,166.8	1.50	-1.50	0.00
4,700.0	12.54	104.56	4,460.5	-299.1	1,151.6	1,189.8	1.50	-1.50	0.00
4,800.0	11.04	104.56	4,558.4	-304.2	1,171.3	1,210.2	1.50	-1.50	0.00
4,900.0	9.54	104.56	4,656.8	-308.7	1,188.6	1,228.1	1.50	-1.50	0.00



**Bill Barrett Corp**

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Horse Bench #4-20D-12-17
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 6725.0ft (Original Well Elev)
<b>Project:</b>	CARBON COUNTY, UT (NAD 27)	<b>MD Reference:</b>	KB @ 6725.0ft (Original Well Elev)
<b>Site:</b>	Horse Bench NE 19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Horse Bench #4-20D-12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.0	8.04	104.56	4,755.6	-312.5	1,203.4	1,243.3	1.50	-1.50	0.00
5,100.0	6.54	104.56	4,854.8	-315.7	1,215.7	1,256.0	1.50	-1.50	0.00
5,200.0	5.04	104.56	4,954.3	-318.3	1,225.5	1,266.1	1.50	-1.50	0.00
5,300.0	3.54	104.56	5,054.0	-320.1	1,232.7	1,273.6	1.50	-1.50	0.00
5,400.0	2.04	104.56	5,153.9	-321.4	1,237.4	1,278.5	1.50	-1.50	0.00
5,500.0	0.54	104.56	5,253.9	-321.9	1,239.6	1,280.7	1.50	-1.50	0.00
5,536.1	0.00	0.00	5,290.0	-322.0	1,239.8	1,280.9	1.50	-1.50	0.00
<b>North Horn</b>									
5,600.0	0.00	0.00	5,353.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,453.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,553.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,653.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,753.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,100.0	0.00	0.00	5,853.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,200.0	0.00	0.00	5,953.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,300.0	0.00	0.00	6,053.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,400.0	0.00	0.00	6,153.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,500.0	0.00	0.00	6,253.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,600.0	0.00	0.00	6,353.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,700.0	0.00	0.00	6,453.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,553.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,900.0	0.00	0.00	6,653.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
6,966.1	0.00	0.00	6,720.0	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
<b>Dark Canyon</b>									
7,000.0	0.00	0.00	6,753.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,100.0	0.00	0.00	6,853.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,200.0	0.00	0.00	6,953.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,053.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,316.1	0.00	0.00	7,070.0	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
<b>Price River</b>									
7,400.0	0.00	0.00	7,153.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,253.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,353.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,453.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,553.9	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
7,816.1	0.00	0.00	7,570.0	-322.0	1,239.8	1,280.9	0.00	0.00	0.00
<b>TD - #4-20D-12-17</b>									

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,513.5	3,360.0	Wasatch		0.00	
5,536.1	5,290.0	North Horn		0.00	
6,966.1	6,720.0	Dark Canyon		0.00	
7,316.1	7,070.0	Price River		0.00	
7,816.1	7,570.0	TD		0.00	

**Bill Barrett Corporation****COMPANY DETAILS: BILL BARRETT CORP**

Calculation Method: Minimum Curvature  
 Error System: ISCWSA  
 Scan Method: Closest Approach 3D  
 Error Surface: Elliptical Conic  
 Warning Method: Error Ratio

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Horse Bench #4-20D-12-17, True North  
 Vertical (TVD) Reference: KB @ 6725.0ft (Original Well Elev)  
 Section (VS) Reference: Slot - (0.0N, 0.0E)  
 Measured Depth Reference: KB @ 6725.0ft (Original Well Elev)  
 Calculation Method: Minimum Curvature

**WELL DETAILS: Horse Bench #4-20D-12-17**

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	524991.99	2408551.30	39° 45' 56.199 N	110° 2' 47.479 W

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	2923.8	28.86	104.56	2843.5	-119.2	459.1	1.50	104.56	474.3	
4	3612.3	28.86	104.56	3446.5	-202.7	780.7	0.00	0.00	806.6	
5	5536.1	0.00	0.00	5290.0	-322.0	1239.8	1.50	180.00	1280.9	
6	7816.1	0.00	0.00	7570.0	-322.0	1239.8	0.00	0.00	1280.9	#4-20D-12-17

## PROJECT DETAILS: CARBON COUNTY, UT (NAD 27)

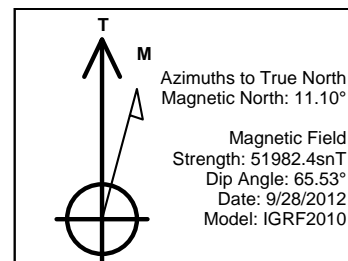
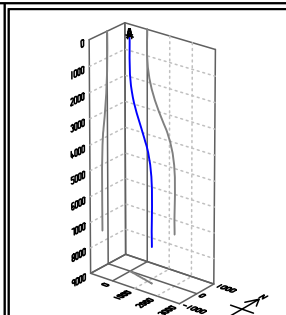
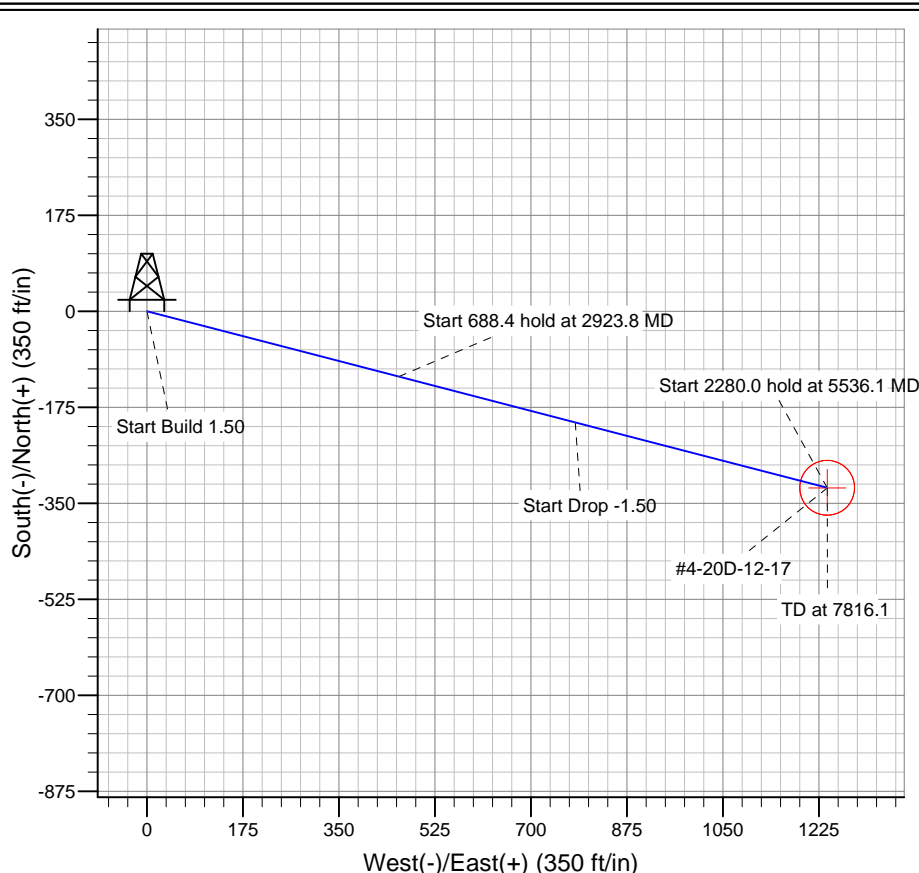
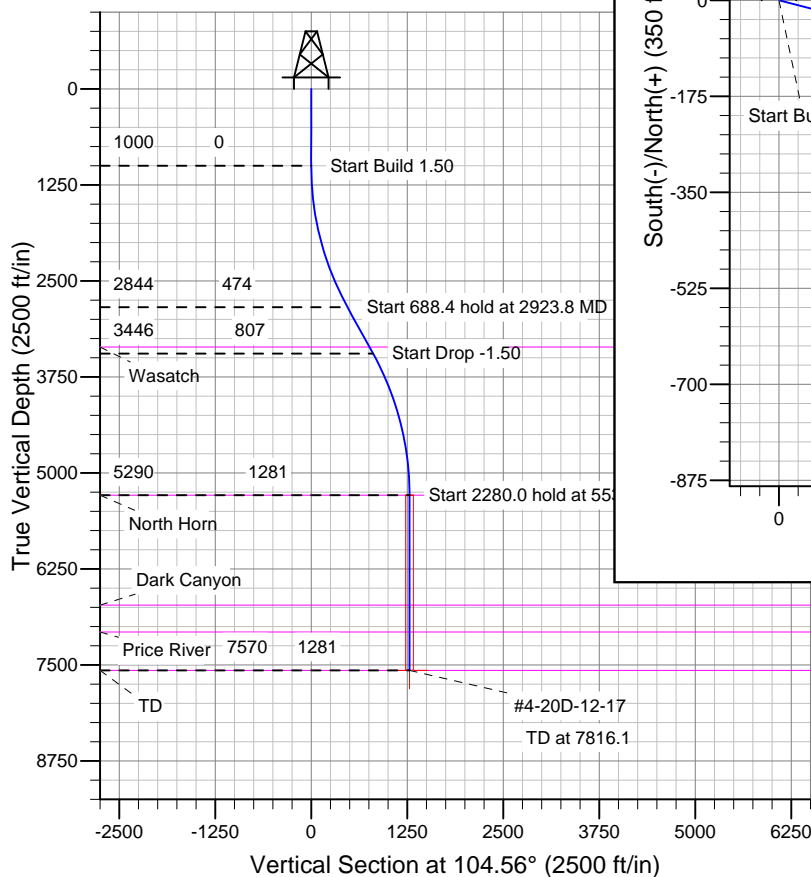
Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Utah Central 4302

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
#4-20D-12-17	7570.0	-322.0	1239.8	39° 45' 53.017 N	110° 2' 31.603 W	Circle (Radius: 50.0)

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3360.0	3513.5	Wasatch
5290.0	5536.1	North Horn
6720.0	6966.1	Dark Canyon
7070.0	7316.1	Price River
7570.0	7816.1	TD



**SURFACE USE PLAN**

BILL BARRETT CORPORATION

**Horsebench 19 Pad**  
**Carbon County, UT**

<b><u>Horse Bench Federal 4-20D-12-17</u></b>	<b><u>Horse Bench Federal 16-18D-12-17</u></b>
NENE, 347' FNL, 550' FEL, Sec. 19, T12S-R17E (surface hole) NWNW, 668' FNL, 691' FWL, Sec. 20, T12S-R17E (bottom hole)	NENE, 340' FNL, 543' FEL, Sec. 19, T12S-R17E (surface hole) SESE, 637' FSL, 607' FEL, Sec. 18, T12S-R17E (bottom hole)

**The onsite for this project has not yet been scheduled. This is a new pad with a total of eight directional wells (two to be drilled in Phase 1, six future wells). An off-lease right-of-way is requested for the off-unit portions of the access road, gas pipeline corridor, liquids pipeline corridor.**

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. **Existing Roads:**

- a. The proposed pad is located approximately 53.8 miles from Myton, Utah. Maps reflecting directions to the proposed pad are included (see Topographic maps A and B).
- b. The use of roads under State and County Road Department maintenance is necessary to access the the proposed location. However, an encroachment permit is not anticipated as there are no upgrades to the State or County road systems proposed at this time.
- c. No topsoil stripping would occur as there are no improvements proposed to existing State, County or main BLM access roads.
- d. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a scraper and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- e. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.
- f. To address safety-related traffic concerns, drivers and rig crews would be advised of the hazards to recreational traffic along the existing and proposed access roads, as well as hazards present due to blind corners, cars parked on the road, pedestrian traffic, and mountain bikers. In addition, appropriate signs would be erected to warn non-project personnel about traffic hazards associated with project-related activities and during times of rig moves, when there is heavy equipment, traffic may be controlled on sections of roads. Traffic would be controlled using roadside signs, flagmen, and barricades as appropriate.
- g. Dust suppression and monitoring would be implemented where necessary and as prescribed by the BLM.

2. **Planned Access Road:**

- a. From the existing Peters Point 11-30 access road, approximately 11,015 ft of access is proposed. Of the proposed access road, 10,684 ft is an existing two track road that will require upgrade and 331 ft of new access road is proposed (see Topographic Map B).
- b. All 11,015 ft of proposed access road is off-unit and **requires a federal off-lease right-of-way that is being requested with this application.**

Bill Barrett Corporation  
 Surface Use Plan  
 Horse Bench 19 Pad  
 Carbon County, Utah

- c. The proposed access road would be co-located by pipeline(s) and the requested corridor disturbance would be 100 ft with a short-term corridor disturbance of 80 ft reclaimed to a long-term corridor of 30 ft.
- d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes.
- e. Intervisible turnouts would be constructed, where necessary and as topographic conditions allow, to improve traffic safety. A maximum grade of 10 percent would be maintained with minimum cuts and fills, as necessary, to access the well pad.
- f. New road construction and improvements of existing roads would typically require the use of motorgraders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.
- g. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private, State of Utah, or federal lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- h. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.
- i. Adequate drainage structures would be incorporated and culverts, with a minimum diameter of 18 inches, would be installed as necessary. Turnouts would also be incorporated where necessary.
- j. No gates or cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- l. All access roads and surface disturbing activities would conform to the appropriate standard, no higher than necessary, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition – Revised 2007. BBC would be responsible for all maintenance of the access road.

3. Location of Existing Wells (see One-Mile Radius Map):

- a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed pad:
 

i. water wells	none
ii. injection wells	none
iii. disposal wells	none
iv. drilling wells	none
v. temp shut-in wells	none
vi. producing wells	none
vii. abandoned wells	one

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Surface Use Plan  
Horse Bench 19 Pad  
Carbon County, Utah

4. Location of Production Facilities:

- a. Each proposed well would have its own meter run and separator. Proposed wellheads and christmas trees **may be** contained below location grade in pre-cast concrete trenches. All wellheads associated with the drilling operations for this pad may be contained in the same trench measuring approximately 26 ft wide, 10 ft deep, and 56 ft long (# wells x 8 ft + 16 ft for two end pieces). Drawings of below ground cellars can be provided by BBC upon request.
- b. Tank facilities for this pad would be a centralized tank battery facility (CTB) that is co-located on this pad and liquids would be pumped through the Peters Point 6-34D CTB located in the SENW, Sec. 34, 12S-16E. Surface facilities for wells associated with this pad and future pads to the east would consist of up to Two 4-pack separators with two 750 BTU burners in each separator, up to ten low profile 300-bbl production tanks, one 300-bbl low profile blow down tank, one 750 BTU line heater, multiple chemical tanks, two glycol solar pumps, multiple chemical solar pumps, 500gl methanol tank and multiple solar pumps, 48" combustor, up to eight 500 BTU tank heaters and possible gas lift compressor. Figure 4 reflects facility plans and is attached.
- c. CTBs would be surrounded by a secondary containment berm of sufficient capacity to contain the 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the CTB or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil. Any variances from this would be submitted via a sundry notice. BBC requests permission to install the necessary production/operation facilities with this application.
- d. Most wells would be fitted with plunger lift systems to assist liquid production. However, pump jacks may be used if liquid volumes and/or low formation pressures require it. Plunger lift systems do not require any outside source of energy. The prime mover for pump jacks would be small (75 horsepower or less), natural gas-fired internal combustion engines.
- e. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3 and any variances would be included with this submittal or submitted via sundry notice.
- f. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 10 ft tall. Combustor placement would be on existing disturbance and would not be closer than 100 ft to any tank or wellhead(s).
- g. Approximately 11,039 ft of two buried gas gathering pipelines (one 16- inch diameter and one 8- inch steel gas lines) and one buried 4-inch flexpipe water line will run from the proposed pad and tie into the Peters Point 11-30 pipeline. The three pipelines associated with this application would require a federal off-lease right-of-way that is being requested with this application. All lines would leave the northwest end of the pad and traverse southwest into Section 18, 12S-17E and tie into the existing pipelines for the Peters Point 11-30 pad (see Topographic Map C)
- h. The proposed gas pipeline would be constructed of steel while the liquids lines would be constructed of steel, polyethylene, or fiberglass. The gas pipeline and liquids line would be buried, where soil conditions permit, within the proposed co-located access road and pipeline corridor.
- i. Although BBC intends on burying the new proposed pipelines, burial of pipelines would depend upon the site-specific topographic and soil conditions and operational requirements. If bedrock was encountered, BBC would contact the Authorized Officer at the time of construction to discuss further.

Bill Barrett Corporation  
Surface Use Plan  
Horse Bench 19 Pad  
Carbon County, Utah

- j. BBC intends on stringing the pipeline on the surface, welding many joints into long lengths, dragging the long lengths into position and then completing a final welding pass to join the long lengths together. The welded joints would either remain on the surface or would be placed within the trench, depending on the scenario. BBC intends on connecting the pipeline together utilizing conventional welding technology.
- k. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the re-establishment of the native plant community.
- l. To limit erosion potential, backfill over pipeline trenches would be compacted so as not to extend above the original ground level after the fill has settled. Wheel or other methods of compacting backfill would be utilized as practicably feasible to reduce trench settling and water channeling.
- m. All **permanent** above-ground structures would be painted a flat, non-reflective Olive Black to match the standard environmental colors. These structures would be painted the designated color at the time of installation or within 6 months of being located on site. Facilities that are required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.
- n. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any changes to facilities proposed within this surface use plan would be depicted on the site security diagram submitted.
- o. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. Location and Type of Water Supply:

- a. Bill Barrett Corporation would use water consistent with approvals granted by the Utah State Engineer's Office under:
  - Application Number 90-1875, expires May 24, 2013
  - Application Number 90-1876, expires May 24, 2013
  - Application Number 90-1879, expires October 11, 2012 (currently in renewal process)
  - Application Number 90-4, expires December 31, 2015
  - Application Number 90-5, expires January 31, 2018
  - Application Number 90-1874, expires January 5, 2013
  - Application Number 90-1866, expires December 31, 2020
- b. Water use for this location would most likely be diverted from Nine Mile Creek, the S<sup>1</sup>/<sub>4</sub> of Section 8, T12S-R16E or from a water well located in the N<sup>1</sup>/<sub>4</sub> of State Section 32-T12S-R16E. For either of these sources, bobtail trucks would haul the water, traveling Cottonwood Canyon dugway to Peter's Point road.
- c. Water use would vary in accordance with the formations to be drilled but would average approximately 1 acre-foot (7,758 barrels) during drilling operations and 1 acre-foot (7,758 barrels) during completion operations.

6. Source of Construction Material:

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be taken past the Peter's Point Unit.
- c. If any additional gravel is required, it would be obtained from SITLA materials permits, federal BBC locations within the Peter's Point unit or from private sources.

7. Methods of Handling Waste Disposal:

Bill Barrett Corporation  
Surface Use Plan  
Horse Bench 19 Pad  
Carbon County, Utah

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.

*Closed Loop Drilling System*

- b. BBC intends to employ a closed loop drilling system in which drilling fluids and cuttings would be thoroughly processed such that the separated cuttings are relatively dry. The cuttings would be stored on location in either secured piles or in a 190 ft x 60 ft cuttings trench (indicated as reserve pit on Figure 1 located outboard of the location along the south side of the pad).
- c. The cuttings trench would not be lined. Three sides of the trench would be fenced before drilling starts and the fourth side would be fenced at the time drilling is completed on the last well on the pad and shall remain until cuttings trench has been reclaimed.
- d. Upon completion of drilling, the cuttings would be tested and further processed as necessary to meet standards for burial on site or other BLM approved uses such as a media for road surfacing or growing media for reclamation.

*Conventional or Semi-Closed Loop Drilling System*

- e. In the event closed loop drilling is not employed, a conventional or semi-closed loop system would be used where a small amount of fluid is retained in the cuttings and the cuttings are placed in the reserve pit. The reserve pit would also store water to make up losses and store any excess drilling fluids. Reserve pits would be constructed with an impermeable liner so as to prevent releases. The pit liner would overlap the pit walls and be anchored with soil and/or rocks to hold it in place. No trash, scrap pipe, etc. that could puncture the liner would be disposed of in the pit and a minimum of 2 ft of freeboard would be maintained in the pit at all times. Reserve pits would be constructed and maintained according to BLM or UDOGM requirements as appropriate.
- f. Three sides of the reserve pit would be fenced before drilling starts and the fourth side would be fenced at the time drilling is completed on the last well on the pad and shall remain until the pit is dry.
- g. Any hydrocarbons floating on the surface of the reserve pit would be removed as soon as possible after drilling and completion operations are finished. In some cases, the reserve pit may be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

*Completion Pit*

- h. Where closed loop drilling is employed, the cuttings trench disturbed area would typically also be used to store water for completion activities. The completion pit would be constructed with an impermeable liner to prevent releases and would be fenced and constructed and maintained according to BLM or UDOGM requirements.

*Other*

- i. Produced fluids from the wells other than water would be decanted into steel test tanks until such time as construction of production facilities is completed. Produced water may be used in further drilling and completion activities, evaporated in the pit or would be hauled to a state approved disposal facility.
- j. After initial clean-up and based on volumes, BBC would install a tank (maximum size 400 barrel capacity) to contain produced waste water. After first production, produced wastewater would be confined to tanks within the CTB for a period not to exceed ninety (90) days. Thereafter, produced water would be used in further drilling and completion activities or hauled to a State approved disposal facility.



Bill Barrett Corporation  
Surface Use Plan  
Horse Bench 19 Pad  
Carbon County, Utah

- k. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
  - l. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.
  - m. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO<sub>2</sub> gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
  - n. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Carbon, Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.
  - o. Sanitary waste equipment and trash bins would be removed from the Horse Bench/WTP Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.
  - p. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the West Tavaputs Project area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is possible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.
  - q. Flare lines would be directed so as to avoid damage to surrounding vegetation, adjacent rock faces, or other resources, and as required by regulations. Flare lines would be in place on all well locations. In the event it becomes necessary to flare a well, a deflector and/or directional orifice would also be used to safeguard both personnel and adjacent natural rock faces.
8. Ancillary Facilities:
- a. Garbage containers and portable toilets would be located on the well pad.
  - b. BLM approved and permitted storage yards for tubulars and other equipment and temporary housing areas would be utilized.
  - c. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required



Bill Barrett Corporation  
Surface Use Plan  
Horse Bench 19 Pad  
Carbon County, Utah

to be on location at all times. Active drilling locations could include up to five single wide mobile homes or fifth wheel campers/trailers.

9. Well Site Layout:

- a. Each well would be properly identified in accordance with 43 CFR 3162.6
- b. The pad has been staked at its maximum size of 490 ft x 305 ft with a 190 ft x 60 ft (6.196 acres) cuttings trench/reserve pit/completion pit outboard of the pad. The location layout and cross section diagrams are enclosed.
- c. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.
- d. Proposed wellheads and christmas trees would be contained below location grade in pre-cast concrete trenches.
- e. The cuttings trench or reserve pit would be fenced on three sides during drilling and on the fourth side immediately after the removal of the drilling rig. In the event closed loop drilling is employed, the cuttings trench would be removed or stockpiled on one edge of the trench and the area would be used for a completion pit during completion operations.
- f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.
- g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.
- h. Construction of the well pad would take from 1 to 3 weeks depending on the features at the particular site.
- i. Dust suppression may be implemented if necessary to minimize the amount of fugitive dust.

10. Plan for Restoration of the Surface:

Interim Reclamation (see Figure 4)

- a. Portions of the disturbed area within a construction ROW or portions of well pads not needed for production would be reclaimed according to specifications of the BLM as appropriate.
- b. Prior to interim reclamation activities, all solid wastes and refuse would be removed and placed at approved landfills. The portions of the well pad, CTB or access and pipeline corridor not needed for production would be re-contoured to promote proper drainage, salvaged topsoil would be replaced, and side slopes would be ripped and disked on the contour. Following site preparation, reseeding would be completed during either the spring or fall planting season, when weather conditions are most favorable. Seed mixtures for reclaimed areas would be site-specific and would require approval by the BLM. BBC would apply and meet BLM's Green River District Reclamation Standards, as practicable.
- c. The operator would control noxious weeds along access road use authorizations, pipeline route authorizations, well sites, CTB's or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the BLM or the appropriate county extension office. On BLM administered land it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or possibly hazardous chemicals.

Bill Barrett Corporation  
Surface Use Plan  
Horse Bench 19 Pad  
Carbon County, Utah

- d. Following interim reclamation, access roads (including roads co-located with pipeline) would be reduced to approximately 30 ft of disturbance. Roads leading to well sites that would not have surface production equipment would be designed and reclaimed in a way that minimizes impacts to the visual character of the host lands.
- e. Weather permitting, earthwork for interim reclamation would be completed within 6 months of completion of the final well on the pad or plugging and would continue until satisfactory revegetation cover is established. Inter-seeding (i.e. seeding into existing vegetation), secondary seeding, or staggered seeding may be used to accomplish revegetation objectives. During rehabilitation of areas in important wildlife habitat, provisions would be made for the establishment of native browse and forb species. Follow-up seeding or corrective erosion control measures would occur on areas where initial reclamation efforts are unsuccessful, as determined by the BLM or the appropriate surface management agency.

Dry Hole/Final Reclamation

- f. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, CTB's etc. would be expediently reclaimed and reseeded in accordance with the reclamation plan and any pertinent site-specific COAs.
- g. When a well is to be plugged and abandoned, BBC would submit a Notice of Intent to Abandon (NOA) to the BLM or UDOGM as appropriate. The BLM or UDOGM would then attach the appropriate surface rehabilitation COAs for the well pad, and as appropriate, for the associated access road, pipeline, and ancillary facilities. During plugging and abandonment, all structures and equipment would be removed from the well pad and CTB. Backfilling, leveling, and re-contouring would then be performed according to the BLM or UDOGM order.
- h. Any mulch used by BBC would be weed-free and free from mold, fungi, or noxious weeds. Mulch may include native hay, small grain straw, wood fiber, live mulch, cotton, jute, synthetic netting or rock.
- i. BBC would reshape disturbed channel beds to their approximate original configuration.
- j. Reclamation of abandoned roads may include re-shaping, re-contouring, re-surfacing with topsoil, installation of water bars, and seeding on the contours. Road beds, well pads, and other compacted areas would be ripped to a depth of approximately 1 foot on 1.5 foot centers to reduce compaction prior to spreading the topsoil across the disturbed area. Stripped vegetation would be spread over the disturbance area for nutrient recycling, where practical. Additional erosion control measures (e.g. fiber matting) and road barriers to discourage travel may be constructed if appropriate. Graveled roads, well pads, and other sites would be stripped of usable gravel prior to ripping as deemed necessary. Culverts, cattleguards, and signs would be removed as roads are abandoned.

11. Surface and Mineral Ownership:

- a. Surface ownership – Federal under the management of the Bureau of Land Management – Price Field Office, 125 South 600 West, Price Utah 84078; (435) 636-3600.
- b. Mineral ownership – Federal under the management of the Bureau of Land Management – Price Field Office, 125 South 600 West, Price Utah 84078; (435) 636-3600.

12. Other Information:

- a. Montgomery Archaeological Consultants conducted cultural resource inventories for this pad, access and pipeline under MOAC 12-272 dated September 5th and 21st, 2012.
- b. BBC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.

Bill Barrett Corporation  
 Surface Use Plan  
 Horse Bench 19 Pad  
 Carbon County, Utah

c. Project personnel and contractors would be educated on and subject to the following requirements:

- No dogs within the WTP Project Area;
- No alcohol within the WTP Project Area;
- No firearms within the WTP Project Area;
- No littering within the WTP Project Area;
- Smoking within the WTP Project Area would only be allowed in off-operator active locations or in specifically designated smoking areas. All cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles; personnel and contractors would abide by all fire restriction orders;
- Campfires or uncontained fires of any kind would be prohibited within the WTP Project Area;
- Portable generators used in the WTP Project Area would have spark arrestors.

d. Proposed disturbances area as follows:

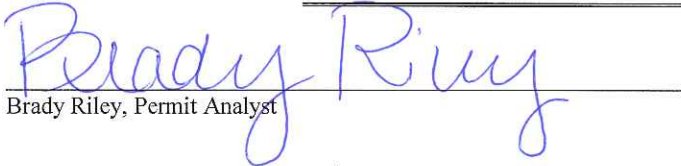
	Short Term	Long Term
Proposed Estimated Pad Disturbance	6.196 acres	1.919 acres
Proposed Estimated Co-Located Rd/PL New Disturbance	.641 acres	.24 acres
Proposed Estimated Co-Located Rd/PL Upgraded Disturbance along two-track <sup>1</sup>	14.725 acres	2.454 acres
Total Proposed Estimated	21.562 acres	4.613 acres

<sup>1</sup>The proposed disturbance associated with the 10,690 ft of existing road to be upgraded was calculated at 60-ft for disturbance purposes as 20-ft of the road is existing.

OPERATOR CERTIFICATION

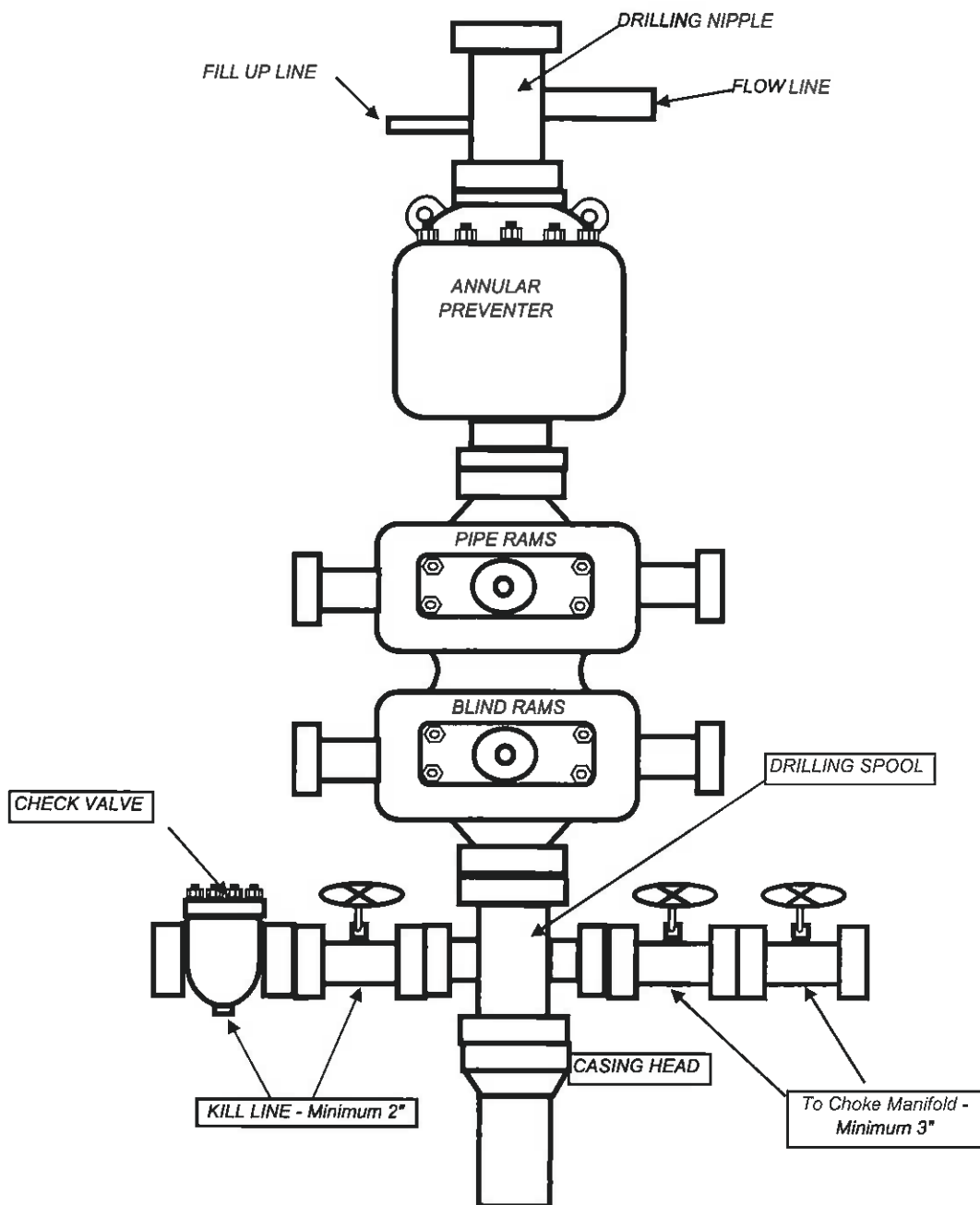
## Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

Executed this 27 day of Sept 2012Name: Brady RileyPosition Title: Permit AnalystAddress: 1099 18<sup>th</sup> Street, Suite 2300, Denver, CO 80202Telephone: 303-312-8115Field Representative Danny RasmussenAddress: 1820 W. Hwy 40, Roosevelt, UT 84066Telephone: 435-724-6999E-mail: drasmussen@billbarrettcorp.com  
Brady Riley, Permit Analyst

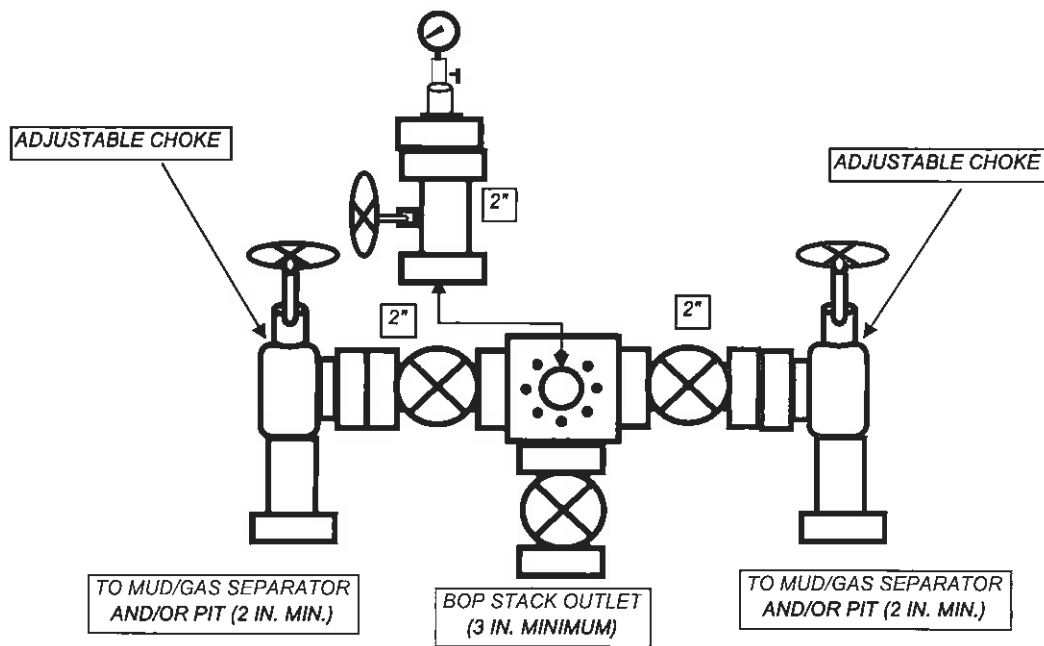
# BILL BARRETT CORPORATION

## TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER



# BILL BARRETT CORPORATION

## TYPICAL 3,000 p.s.i. CHOKE MANIFOLD





September 25, 2012

Ms. Diana Mason  
State of Utah  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Directional Drilling R649-3-11  
Horse Bench #4-20D-12-17  
SHL: 347' FNL & 550' FEL, NENE 19-T12S-R17E  
BHL: 668' FNL & 691' FWL, NWNW 20-T12S-R17E  
Carbon County, Utah

Dear Ms. Mason:

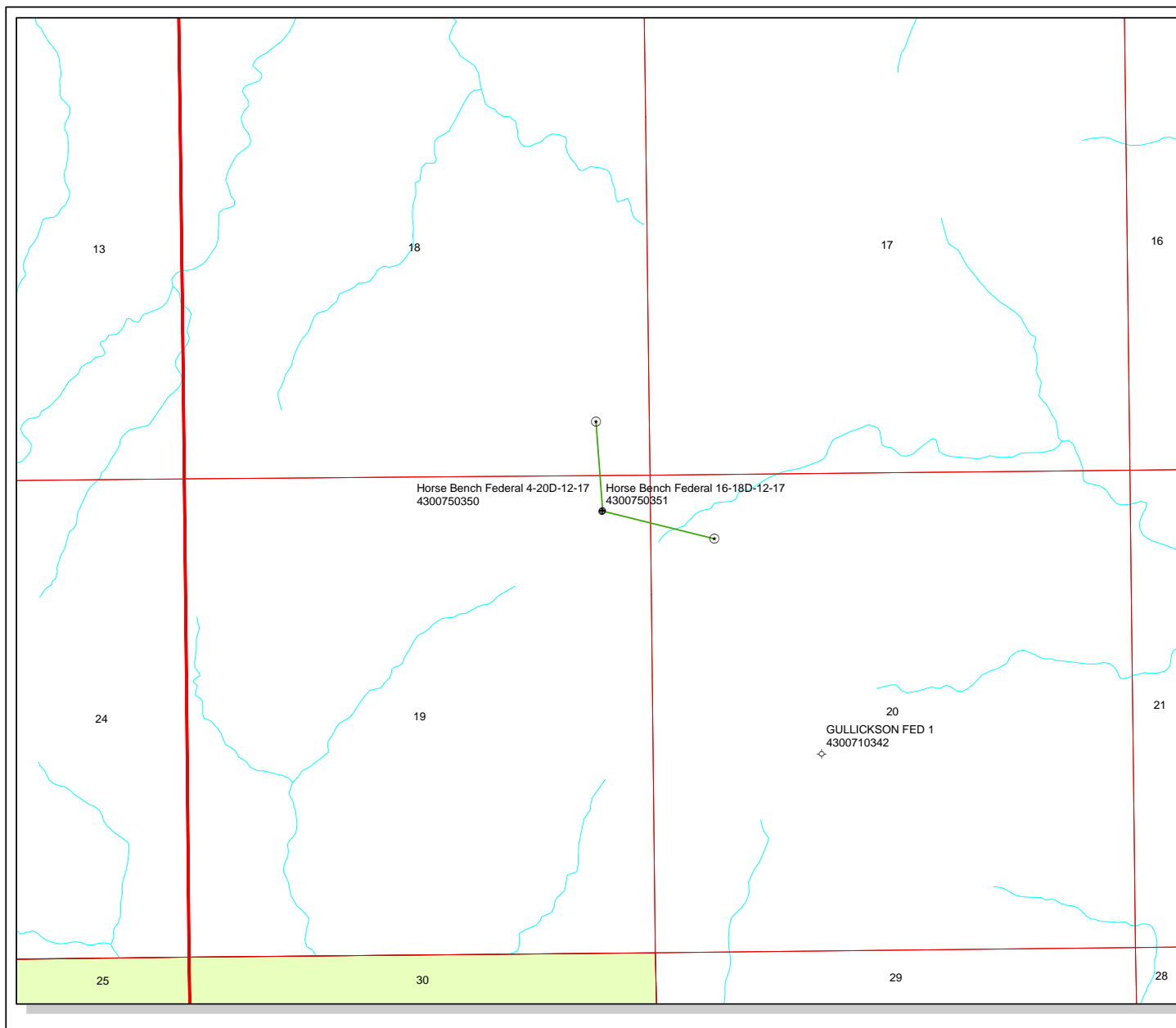
Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill ("APD") regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the "Exception to Location and Siting of Wells."

- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area;
- BBC hereby certifies this well is located within the 400 feet "window" of the center of the 40 acre quarter-quarter section referenced above.
- Additional working interest owner includes XTO Energy, Inc. BBC will consult with this owner regarding the drilling of this well.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. If you should have any questions or need further information, please contact Matt Mulverhill, Land Administrator at 303-312-8118.

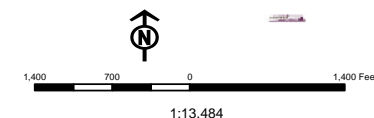
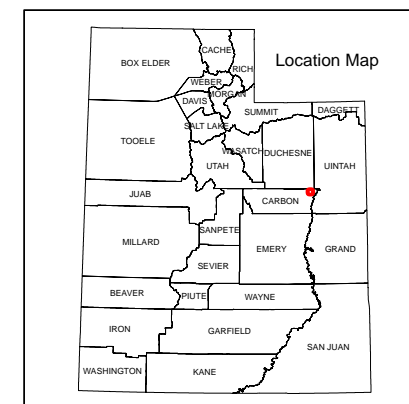
Sincerely,

Matt Mulverhill  
Land Administrator



**API Number: 4300750350**  
**Well Name: Horse Bench Federal 4-20D-12-17**  
**Township T12.0S Range R17.0E Section 19**  
**Meridian: SLBM**  
**Operator: BILL BARRETT CORP**  
 Map Prepared:  
 Map Produced by Diana Mason

Units	Wells Query
<b>STATUS</b>	<b>Status</b>
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LOC - New Location
PI OIL	OPS - Operation Suspended
PP GAS	PA - Plugged Abandoned
PP GEOTHERM	PGW - Producing Gas Well
PP OIL	POW - Producing Oil Well
SECONDARY	SGW - Shut-in Gas Well
TERMINATED	SOW - Shut-in Oil Well
<b>Fields</b>	TA - Temp. Abandoned
Unknown	TW - Test Well
ABANDONED	WDW - Water Disposal
ACTIVE	WW - Water Injection Well
COMBINED	WSW - Water Supply Well
INACTIVE	Bottom Hole Location - Oil/Gas/Dls
STORAGE	
TERMINATED	





## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 9/28/2012

API NO. ASSIGNED: 43007503500000

WELL NAME: Horse Bench Federal 4-20D-12-17

OPERATOR: BILL BARRETT CORP (N2165)

PHONE NUMBER: 303 312-8115

CONTACT: Brady Riley

PROPOSED LOCATION: NENE 19 120S 170E

Permit Tech Review: ☒

SURFACE: 0347 FNL 0550 FEL

Engineering Review: ☐

BOTTOM: 0668 FNL 0691 FWL

Geology Review: ☒

COUNTY: CARBON

LATITUDE: 39.76541

LONGITUDE: -110.04711

UTM SURF EASTINGS: 581616.00

NORTHINGS: 4402154.00

FIELD NAME: WILDCAT

LEASE TYPE: 1 - Federal

LEASE NUMBER: utu65783

PROPOSED PRODUCING FORMATION(S): NORTH HORN

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: FEDERAL - WYB000040☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: NINE MILE CANYON☐ RDCC Review:☐ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

## LOCATION AND SITING:

☐ R649-2-3.

Unit:

☐ R649-3-2. General☒ R649-3-3. Exception☒ Drilling Unit

Board Cause No: R649-3-11

Effective Date:

Siting:

☒ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 1 - Exception Location - bhill  
4 - Federal Approval - dmason  
15 - Directional - dmason  
23 - Spacing - dmason

RECEIVED: November 01, 2012



GARY R. HERBERT  
*Governor*

GREGORY S. BELL  
*Lieutenant Governor*

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** HORSE BENCH FED 4-20D-12-17  
**API Well Number:** 43007503500000  
**Lease Number:** utu65783  
**Surface Owner:** FEDERAL  
**Approval Date:** 11/1/2012

### Issued to:

BILL BARRETT CORP, 1099 18th Street Ste 2300, Denver, CO 80202

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-11. The expected producing formation or pool is the NORTH HORN Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled,

completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> utu65783
<b>1. TYPE OF WELL</b> Gas Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> BILL BARRETT CORP		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> 1099 18th Street Ste 2300 , Denver, CO, 80202		<b>8. WELL NAME and NUMBER:</b> HORSE BENCH FED 4-20D-12-17
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0347 FNL 0550 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 19 Township: 12.0S Range: 17.0E Meridian: S		<b>9. API NUMBER:</b> 43007503500000
<b>PHONE NUMBER:</b> 303 312-8134 Ext		<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>COUNTY:</b> CARBON		<b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: <b>11/1/2014</b>	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> <b>APD EXTENSION</b> OTHER: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px;"></span>
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  

Renew another year as BLM permit has not been apvd

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: October 07, 2013

By:

<b>NAME (PLEASE PRINT)</b> Christina Hirtler	<b>PHONE NUMBER</b> 303 312-8597	<b>TITLE</b> Administrative Assistant
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/4/2013	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices**

**Request for Permit Extension Validation Well Number 43007503500000**

**API:** 43007503500000

**Well Name:** HORSE BENCH FED 4-20D-12-17

**Location:** 0347 FNL 0550 FEL QTR NENE SEC 19 TWP 120S RNG 170E MER S

**Company Permit Issued to:** BILL BARRETT CORP

**Date Original Permit Issued:** 11/1/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☒ Yes ☐ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

**Signature:** Christina Hirtler

**Date:** 10/4/2013

**Title:** Administrative Assistant **Representing:** BILL BARRETT CORP

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> utu65783
<b>1. TYPE OF WELL</b> Gas Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> ENERVEST OPERATING, LLC		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> 1001 Fannin Street, Suite 800, Houston, TX, 77002		<b>8. WELL NAME and NUMBER:</b> HORSE BENCH FED 4-20D-12-17
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0347 FNL 0550 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 19 Township: 12.0S Range: 17.0E Meridian: S		<b>9. API NUMBER:</b> 43007503500000
<b>PHONE NUMBER:</b> 713 659-3500 Ext		<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>COUNTY:</b> CARBON		<b>STATE:</b> UTAH


11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: <b>6/15/2015</b>	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> <b>APD EXTENSION</b> OTHER: <input style="width: 100px;" type="text"/>
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 EnerVest Operating, LLC requests a one year drilling permit extension for the referenced well. This is the second extension that has been requested.

Approved by the  
November 25, 2014  
Oil, Gas and Mining

Date: \_\_\_\_\_

By: 

<b>NAME (PLEASE PRINT)</b> Don Hamilton	<b>PHONE NUMBER</b> 435 650-3866	<b>TITLE</b> Permitting Agent
<b>SIGNATURE</b> N/A	<b>DATE</b> 11/15/2014	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43007503500000**

API: 43007503500000

Well Name: HORSE BENCH FED 4-20D-12-17

Location: 0347 FNL 0550 FEL QTR NENE SEC 19 TWNP 120S RNG 170E MER S

Company Permit Issued to: ENERVEST OPERATING, LLC

Date Original Permit Issued: 11/1/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☒ Yes ☐ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
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- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

Signature: Don Hamilton

Date: 11/15/2014

Title: Permitting Agent Representing: ENERVEST OPERATING, LLC

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> utu65783
		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>1. TYPE OF WELL</b> Gas Well		<b>8. WELL NAME and NUMBER:</b> HORSE BENCH FED 4-20D-12-17
<b>2. NAME OF OPERATOR:</b> ENERVEST OPERATING, LLC		<b>9. API NUMBER:</b> 43007503500000
<b>3. ADDRESS OF OPERATOR:</b> 1001 Fannin Street, Suite 800, Houston, TX, 77002		<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0347 FNL 0550 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 19 Township: 12.0S Range: 17.0E Meridian: S		<b>COUNTY:</b> CARBON
		<b>STATE:</b> UTAH

11.


CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: <b>4/15/2016</b>	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input checked="" type="checkbox"/> APD EXTENSION  OTHER: <input type="text"/>
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

EnerVest Operating, LLC requests a one year drilling permit extension for the referenced well. This is the third extension that have been requested.

**Approved by the**  
**October 15, 2015**  
**Oil, Gas and Mining**

Date: \_\_\_\_\_  
 By: 

<b>NAME (PLEASE PRINT)</b> Don Hamilton	<b>PHONE NUMBER</b> 435 650-3866	<b>TITLE</b> Permitting Agent
<b>SIGNATURE</b> N/A		<b>DATE</b> 10/13/2015





**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43007503500000**

API: 43007503500000

Well Name: HORSE BENCH FED 4-20D-12-17

Location: 0347 FNL 0550 FEL QTR NENE SEC 19 TWNP 120S RNG 170E MER S

Company Permit Issued to: ENERVEST OPERATING, LLC

Date Original Permit Issued: 11/1/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☒ Yes ☐ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

Signature: Don Hamilton

Date: 10/13/2015

Title: Permitting Agent Representing: ENERVEST OPERATING, LLC



Diana Mason <dianawhitney@utah.gov>

## EnerVest APD's to rescind

Star Point Enterprises, Inc. <starpoint@etv.net>  
To: Diana Mason <dianawhitney@utah.gov>

Tue, Oct 11, 2016 at 8:10 AM

Diana;

EnerVest wishes to have the following APD's rescinded or expired under their own terms.

Operator↑	API Number↑	Well Name↑	Work Type↑	Date Approved↑	Date Permit Will Expire↑
ENERVEST OPERATING, LLC	4300750350	HORSE BENCH FED 4-20D-12-17	DRILL	11/01/2012	11/01/2016
ENERVEST OPERATING, LLC	4300750351	Horse Bench Federal 16-18D-12-17	DRILL	11/01/2012	11/01/2016
ENERVEST OPERATING, LLC	4300731465	PPU FED 11-34D-12-16	DRILL	11/04/2008	11/04/2016
ENERVEST OPERATING, LLC	4300731469	PPU FED 10-34D-12-16	DRILL	11/04/2008	11/04/2016
ENERVEST OPERATING, LLC	4300750094	PRICKLY PEAR U FED 12-7D-12-15	DRILL	11/16/2010	11/16/2016
ENERVEST OPERATING, LLC	4300750095	PRICKLY PEAR U FED 11-7D-12-15	DRILL	11/16/2010	11/16/2016
ENERVEST OPERATING, LLC	4300750096	PRICKLY PEAR U FED 13-7D-12-15	DRILL	11/16/2010	11/16/2016
ENERVEST OPERATING, LLC	4300750097	PRICKLY PEAR U FED 14-7D-12-15	DRILL	11/16/2010	11/16/2016

Don



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

October 13, 2016

Don Hamilton  
Enervest Operating, LLC  
1001 Fannin St Ste 800  
Houston, TX 77002

Re: APDs Rescinded for Enervest Operating, LLC., Carbon County

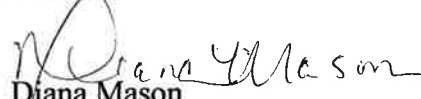
Dear Mr. Hamilton:

Enclosed find the list of APDs that you asked to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded as of October 11, 2016.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Price



43-007-50350 Horse Bench Fed 4-20D-12-17  
43-007-50351 Horse Bench Federal 16-18D-12-17  
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Diana Mason <dianawhitney@utah.gov>

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October 13, 2016

Don Hamilton  
Enervest Operating, LLC  
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Houston, TX 77002

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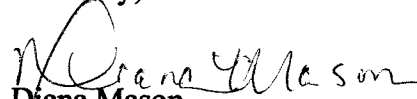
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